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A Model of Successful Adaptation to Online Learning for College-Bound Native American HIgh School Students

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A MODEL OF SUCCESSFUL ADAPTATION TO ONLINE LEARNING FOR

COLLEGE-BOUND NATIVE AMERICAN HIGH SCHOOL STUDENTS

By

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ABSTRACT

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A Model of Successful Adaptation to Online Learning for College-Bound Native
American High School Students

Chairperson: Dr. Darrell Stolle

Abstract

   The primary purpose of this grounded theory study was to shed light on the personal
online learning experiences of Native American high school students in Montana. The
overarching research question was: *What are the conditions for college-bound Native
American high school students that result in a successful adaptation to an online learning
environment?*
   Eight Native American students attending high schools on the Flathead and Blackfeet
Reservations, and one small urban city, were interviewed two separate times for
approximately 45 minutes. All participants had passed online coursework with a grade of
C or better, taken through Montana Digital Academy. One hundred and twelve pages of
interview data were systematically coded. A theoretical model was created illustrating the
successful adaptation of Native high school students to an online learning environment.
 Within the framework of ecological psychology, findings showed a congruence of
students' learning desires and needs and the online learning environment. In participants'
local high schools, course offerings were limited. This resulted in boredom and lack of
challenge. Students wanted new and interesting coursework and learning online met this
need. They took the initiative to work at their own pace and ability levels, relearning or
working ahead. They enjoyed the challenge, freedom, and independence that resulted
from learning online. Those who frequently missed school were easily accommodated.
   A student's orientation toward education, such as attitude toward learning and school,
family influence, and past interactions with classroom teachers, affected the adaptation
process. Participants felt empowered and had more positive expectations for their future
as a result of learning online. This was caused by three factors: feelings of independence
working without one-to-one personal contact from a classroom teacher, confidence
gained when successfully completing assignments, and control felt from being in charge
of their own learning.
   The practical significance is three-fold: first, online learning experiences of Native
American high school students are well documented; second, the findings benefit those
who lack understanding of how Native American students adapt to an online
environment; and finally, educators are better equipped to create supports that promote
academic success for Native students.

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TABLE OF CONTENTS

CHAPTER ONE

The Study

Introduction

Most schools throughout the U.S. are trying to find more effective ways to serve *all* students. This includes providing students with more appropriate and effective settings in which to learn. They are breaking with the traditional high school model and targeting instruction to the needs of the students (Grier & Peterson, 2007).

One such model is the "virtual" high school. Technology, connectivity, and online coursework are fundamentally changing learning environments in three important ways. First, this type of environment fosters personalized instruction, in which performance is measured by mastering skills, not by the number of hours spent in a classroom. Second, content is monitored and tailored for individual students. Third, time and classroom locations do not dictate student learning (Patrick, 2007).

By 2011, most states had a state-sponsored or funded "virtual" school. In July 2009, the Montana state legislature recognized the need to provide more educational opportunities across its state and funded a virtual school, Montana Digital Academy (MTDA). The school's first academic year began September, 2010.

American Indian students were one group that MTDA hoped to serve. An important part of MTDA's mission was to provide rural and remote communities with access to a wider variety of coursework, taught by Montana-licensed instructors. In Montana's K-12 public school population, 11.6% are American Indian. Fifty-four out of the state's 231 schools that did not make Adequate Yearly Progress (AYP) consisted mainly of American Indian students. Eighty-one percent of districts located on

reservations did not make AYP (Juneau, 2009). Data released from the Director of Indian Education at Montana's Office of Public Instruction (OPI) revealed a 25% achievement gap between Native and non-Native high school students (Smoker-Broaddus, 2009).

Attendance is part of a larger issue of disengagement and school culture (Railsback, 2004). OPI data predicted that 50% of American Indian students will drop out of high school (Smoker-Broaddus, 2009). Most males drop out in tenth grade.

Some commonly cited reasons that students drop out (regardless of ethnic background) are: lack of positive relationships between teachers and students; not feeling safe at school; not being able to keep up with schoolwork; and, lack of challenging coursework. Students are more likely to remain and achieve in schools where people care about them (Railsback, 2004).

A caring and supportive school, in which a student's culture is respected and children can identify and make connections with their heritage, is important for students of diverse cultures. An effective school program also consists of more teacher-student interaction, a flexible school schedule, and an educational program designed for differing modes of learning (Schargel & Smink, 2001).

Strand and Peacock (2002) interviewed 150 Native students and found that "being well-grounded and connected to their tribal culture" was a large part of why they stayed in school (p. 108). Research showed that American Indian students who were grounded in their culture had lower dropout rates, higher test scores, and were more likely to advance to higher education.

The beginning of the 21st century brought rapid growth of high school online learning, spurred on by concerns over equal access to Advanced Placement offerings, and

government policies and funding that promoted online learning for educational equity. Most programs target high school students; the majority of online participants take a course or two while attending high school full time. The ability to individualize instruction fits well with high school reform models (Cavanaugh & Blomeyer, 2007).

Students in rural communities have access to a limited number of courses at their schools. These students lack the opportunities to take advanced academic core classes as well as enriching elective courses. "Online learning has the potential to transform teaching and learning by redesigning traditional classroom instructional approaches, personalizing instruction and enhancing the quality of learning experiences" (Patrick & Powell, 2009, p. 9).

This study was prompted by the significant need to research the successful learning experiences of Native American students in an online environment. The Internet is a critical component in the overall educational experience of many teenagers and there is agreement among teens and their parents that the Internet can be a useful tool for learning (Rainie & Hitlin, 2005). The grounded theory approach led the researcher to important findings and a useful theoretical model that will aid in the development of future online coursework for Native American students, as well as fill the void in the existing research literature.

Problem Statement

It has been well documented that the classroom-learning environment is a poor fit for many of Montana's American Indian students (Cross, 2001; Juneau, 2001; Szasz, 1974). There has been a large academic achievement gap between Native and non-Native students in the state (Nelson, Greenough & Sage, 2009). American Indian students

represent 10.4% of the total high school enrollment but 23% of students who drop out. OPI has identified several contributing factors to this lack of success: historical/cultural issues; a need for greater parent/family outreach; high student mobility rates; and, a lack of academic challenge and high expectations. (Smoker-Broaddus, OPI, 2009).

The online learning environment shows promise for those Native American students who lack interest or academic challenge in traditional settings. However, scholarly research on Native American high school students and online learning environments is practically non-existent. There was a significant need to study the learning experiences of Native American students within the context of an online learning environment.

Purpose of the Study

The rapid growth of K-12 online learning has been spurred on by the "emergence of the World Wide Web, relatively high levels of computer and Internet access…and government policies…that promote online learning for educational equity and other purposes" (Cavanaugh & Bromeyer, 2007, p. 8).

The primary purpose of this grounded theory study was to shed light on the personal online learning experiences of successful Native American students attending high schools located on Montana's Flathead and Blackfeet Reservations. Native students who passed online coursework, taken through Montana Digital Academy, were interviewed in person on two separate occasions for approximately 45 minutes each. Interviews took place at the high school where the student was enrolled. The overall aim of the study was to create a visual model that illustrated the successful adaptation of

Native American high school students to an online environment. Findings should help maximize the benefits to Native students taking future online coursework.

This exploratory study was conducted so educators can better understand the essential components needed for Native American students to achieve in online coursework. The findings will assist in the creation of appropriate curricula, methods of communication, and support systems to ensure success.

Central Question

The qualitative paradigm of being immersed in the research, inductively building a theory, was the best approach to this exploratory study which answered the following overarching question: *What are the conditions for college-bound Native American high school students that result in a successful adaptation to an online learning environment?*

Definition of Terms

For purpose of this study, the terms ***American Indian*** and ***Native American*** were used interchangeably. The school counselor and the participant reported the student's ethnic identification. According to Juneau (2009), legally and politically, an American Indian is a member of a tribe. While the term *Native American* came into usage in the 1960s, most tribal groups in Montana refer to themselves as *American Indian*.

The terms ***online learning and e-learning*** referred to Web-based coursework, facilitated by a remote instructor, that the student accessed asynchronously 24 hours per day, seven days per week. There were a number of synonymous terms used in existing literature – *virtual learning and digital learning*; these terms all related to online learning but had slightly different meanings (Watson, Gemin, Ryan, & Wicks, 2009). Cavanaugh and Blomeyer (2007) wrote:

Online learning is a type of distance education in which teacher and learners are separate in time or space. The primary purpose of K-12 distance education, which is to expand access to education and provide curricular options, has changed little over time, but it is also increasingly seen as a tool of education reform. (p. 5)

Enrichment referred to elective courses not available at the student's *home* school.

Advancement referred to core academic and/or AP coursework not available at the student's home school.

A *virtual school* is one that is developed, administered, or funded in part by state government and intended to provide online learning statewide (Watson, Winograd & Kalmonm 2004). For purposes of this study, online coursework was delivered through Montana Digital Academy during fall semester, 2010. Students completed coursework using the Internet both on and off their school campus.

Montana Digital Academy **(MTDA)** was a new state-funded virtual school that delivered Web-based coursework asynchronously to students throughout the state of Montana. MTDA worked in partnership with school districts to provide the coursework and instructors. A Montana-licensed instructor taught each course. MTDA offered approximately 50 online courses to Montana students. Courses were offered free to all Montana public school students during the 2010-2011 academic school year.

Delimitations

The scope of this study was limited to Montana Native American high school students who successfully completed at least one course through Montana Digital

Academy. Students were enrolled in public high schools located on Flathead and Blackfeet Indian Reservations, and one small urban city. Montana Digital Academy was an online coursework service-provider for Montana students based at the University of Montana, Missoula. The academic year for students began in September, 2010.

Limitations

Certain parameters existed in applying results of this study's findings to other areas. It was important to understand there was a wide variety of online high school coursework and providers available. The findings of this study were limited to the online learning experiences of Montana Native American high school students who completed coursework with a C or better, delivered by Montana Digital Academy. Students took coursework in digital photography, web design, Latin, and health enhancement. Results may be transferred to another context if there were similar situations to the one described in this study.

There were some limitations on asking questions about Native culture. Participants may not have felt they knew the researcher well enough to truly open up regarding culture. Their responses might be accurate, or they may have just been meant to divert attention away from having to really address the question.

Construct of generalizability. The results of this study cannot be generalized to a different population because there was not sufficient quantitative data or sample size to make predictions. Since this was a qualitative study, no random sampling was conducted.

The context of this study was unique, so results cannot be generalized from one case to another (Creswell, 2007). The sample consisted of eight Montana Native American high school students who successfully completed MTDA coursework. Students

ranged from 9$^{\text{th}}$ through 12$^{\text{th}}$ grade and were enrolled in public high schools located on the Flathead and Blackfeet Indian Reservations, as well as one small urban city.

Significance of the Study

The significance of this study was that it was original research about Native American high school students and online learning experiences that added to the theoretical body of knowledge in the educational field. The practical significance to educators and students was three-fold: first, online learning experiences of Native American high school students were well documented; second, the theoretical findings benefit those who lack understanding of how Native students successfully adapted to an online environment; and finally, educators are better equipped to create technical and curricula supports that promote academic success for Native American high school students.

Summary

The traditional brick and mortar public high schools have not met the educational needs of many of Montana's Native American high school students. There was a significant need to study the successful learning experiences of Native American high school students in a new learning environment, one that was virtual. No such research existed.

Findings from this study can be used to improve academic achievement for all Native students. The researcher discovered the environmental conditions for Native American high school students that led to successful adaptation to online learning. The study also helped fill the void in existing literature on the topic of Native American high school students and online learning.

CHAPTER TWO

Review of the Literature

Justification of Literature Review Design

Review of appropriate literature is an important foundational piece that guides the research methodology and data analysis. According to Boote and Beile (2005), the purpose of a literature review is to "advance our collective understanding of the topic" by understanding the types of research that have been conducted before, and to "know the strengths and weaknesses of existing studies" (p. 3).

The literature review ensures that a study's findings contribute to the scholarly field. It justifies the inclusion and exclusion of pertinent literature; supports the theoretical model that emerges from the data analysis; and allows for a critique of research methods used in the current literature (Boote & Beile, 2005).

Grounded Theory

Glaser and Strauss (1967), who founded the grounded theory method, wrote that literature can be reviewed to provide the researcher with a framework to guide the study, but he strongly recommended doing the literature review *after* the theoretical concepts were formulated.

Mavetera and Kroeze (2009) wrote about Glaser's unique approach to the literature review:

> In using GTM (Grounded Theory Method), the intention is to *discover* and not to test or duplicate concepts and hypotheses….This, Glaser warns, could introduce researcher bias by giving rise to a set of preconceived concepts, categories and properties from other researchers' work. Starting with a literature study will

constrain the free discovery of theory and, hence, will defeat the main dictum of grounded theory approach. (pp. 8-9)

In line with the grounded theory approach, the researcher accessed literature as it became relevant (Dick, 2005). The literature review did not suggest hypotheses, but showed gaps in existing knowledge, which then gave the rationale for this type of qualitative study (May, 1986).

Native Americans and Online Learning

The following studies are representative of research conducted on the topic of Native American learners and online learning, within the past decade. The existing scholarly research involved college students, not high school students.

Recent research on Native American college students in North Carolina (Fire, 2009) found that students felt empowered through participating in online coursework. Fire's research provided evidence that Native learners have had success in online learning environments.

Fire (2009) conducted a single-site descriptive case study using tribal college students in order to further understand online learning experiences of traditional, remote Native Americans. The study found that students learned better online when they worked with instructors who modeled Native Ways of Knowing (NWOK) and when they took coursework designed to enable NWOK. Success also depended on access to technology, a user-friendly learning management system, and support and mentoring. Native students felt empowered by the ability to express their own *voice* through participating in online coursework.

Todacheene (2008) also researched college students and looked at students' sense of community, connectedness, and learning experiences. A survey research questionnaire, developed by Rovai (2002), was utilized. On-campus learners experienced a greater sense of community than off-campus Tribal college students. The study attributed this to the on-campus students' face-to-face interaction and access to resources.

Smith-Hunt (2001) explored the personal perspectives of Native Americans, Blacks, and Latinos regarding their comfort level in an online classroom. The study concluded that issues of ethnicity are tied to students feeling comfortable. There were seven participants in the study. Smith-Hunt used two methods of data collection: a survey of distance education providers and adult minority distance learners, and in-depth telephone interviews with participants. Smith-Hunt discovered that minority students were active participants in online education and recommended that future research on minority student performance in online environments be compared to performance in traditional on-campus settings.

Lavelle, Larsen, and Gunderson (2009) conducted research on strategies for surveying American Indians. This population is sometimes labeled *hard-to-reach*. This article revealed various approaches to defining who is an American Indian. It also emphasized challenges that arise in conducting research with this population. Lavelle et al. concluded that full and active partnerships with American Indian communities were needed to improve the quality of data collected.

It is not only students that need to adapt to new educational environments. Doshier (2003) studied Native American nursing students' online learning experiences and found that instructors also needed to adapt. Ambler (1999) wrote more than a decade

ago that online instructors needed to understand the value of maintaining a personal connection with students. Ambler believed the Montana Consortium demonstrated the importance of this when they had instructors travel to reservation tribal colleges to visit students in person. Since 1974, the University of Alaska-Fairbanks has also placed faculty in Native communities to reduce cultural distance. This gave many faculty members the opportunity to learn more about Native Ways of Knowing.

Davis (2000) also studied the topic of Native American culture and found that Tribal leaders were concerned about sending cultural information over distance learning networks. The research emphasized that specific cultural information should be discussed with Tribal spiritual leaders before being disseminated through online learning coursework. However, leaders' responses indicated a willingness to get involved in digital learning. Due to the sacredness of Native American traditions, the researcher used a culturally sensitive protocol when approaching spiritual leaders for information.

Research on English language learners (ELL) parallels studies conducted with Native American populations. VanBerschot (2008) investigated the type of communication that asynchronous online learning environments provided English language learners. The study concluded that online learning allowed ELL students the time and flexibility to become more comfortable in a new environment. The study also found that the learners' culture influenced online communication. Instructors were not aware of the challenges the learners faced in the online courses. They were also unaware of the role students' culture played in online communication. VanBerschot recommended future research in the area of intercultural online communication in virtual classrooms.

Native Americans and Academic Performance

American Indian children have the poorest academic performance among public school students (Tirado, 2001). Reasons include low teacher expectations, high student mobility, lack of American Indian teachers, communication and learning differences, and cultural bias in standardized tests. Only one in five American Indian and Alaskan Native eighth grade students read at or above grade level (Amos, 2008). Alaskan Native students in remote locations have high educational goals, yet most do not enter the college programs they desire and have a lack of direction (Doyle, Klienfeld, & Reyes, 2009).

The ways school teach are often in direct conflict with the ways children learn in their homes (Cleary & Peacock, 1998). When there are "strong differences between the culture of a child's home and the culture of the school, can be confusing to a child. As educators we need to learn to see these differences clearly if we are to transact them in the educational setting" (Cleary & Peacock, 1998, p. 7). There are also subtle differences including "perceptions of time, values, world views, and ways of expression and learning" (p. 7).

Given the right kind of academic supports, high levels of academic achievement can be fostered among students from a range of ethnic and socioeconomic backgrounds (Mayer, 2008). Mayer identified the most effective strategies: providing access to high quality curriculum; providing scaffolding to ensure academic success; and providing supportive, academically oriented, peer groups.

There is a large disparity between ethnic groups in college participation and success. This will become a major economic and social challenge in the 21st century. Many states are experiencing a significant demographic change in their population and

state leaders. In order to close the gap in college participation, there are national reform efforts to bring together primary, secondary, and postsecondary systems to create a P-16 alignment (Governor's Business Council, 2002*)*.

Lack of finances has created an inequality in college access between low-income and high-income students and between minorities and whites (St. John, 2002). St. John believed that the numerous studies conducted by the National Center for Education Statistics (NCES) overlooked the impact of reductions in federal need-based grants and ignored the effect of finances when analyzing the disparity in college access. He believed that restoring federal need-based grants to their 1980 level would help equalize opportunities for college-qualified high school graduates.

Native Americans and Learning Needs

An extensive literature review for a 20-year period was conducted by Demmert (2001) that provided evidence of what works and what does not work, when teaching American Indian students. There is no generic American Indian student, but research has shown what benefits the learning needs of many Native students. A flexible, informal learning environment works best when teaching students (Hilberg & Tharpe, 2002) and experiential, hands-on, and active learning strategies should be used (Reyhner, 2001).

In order to build new learning out of prior knowledge, reflective processing should be integrated (Pewewardy & Hammer, 2003). Cooperative learning is most successful and should be used in the classroom (Hillberg & Tharpe, 2002). "Even in classrooms consisting exclusively of a single cultural group, as is the case in many reservation schools, teachers must use a variety of instructional strategies. Effective teaching requires teaching individuals" (Hillberg & Tharpe, 2002, p. 1).

There is a positive relationship between Native students' achievement and their strong sense of cultural identity (Cleary & Peacock, 1998); culturally responsive teaching is a critical element in this achievement (Pewewardy & Hammer, 2003). Important factors are: teacher's knowledge of Native culture and learning styles; teacher's reflections on his or her own belief systems and stereotypes; and schools' actions in modeling respect for diversity and alternative ways of knowing (Pewewardy & Hammer, 2003).

Native Americans and Gifted Education

A widespread underrepresentation of minority students exists in gifted programs (Montgomery, 2001; Mayer, 2008; Fisher, 2007). Many high-achieving students share similar risk factors with their low-achieving peers (Mayer, 2008). Several factors contribute to the lack of American Indian students in gifted programs: the need for more appropriate testing and measures; the need for more appropriate language and cultural characteristics; the need to provide educational options to Indian children in rural schools; and the need to address alternative learning styles (Montgomery, 2001).

In Montana, Native American students are underrepresented in gifted and talented programs, including Advanced Placement (AP) exam taking, and overrepresented in special education programs (Education Trust, 2003). Fisher (2007) wrote that to best reach the gifted Indian youth, teachers and gifted specialists need to be aware of the differences in tribal cultures and traditions, which can greatly influence how students express their talents.

American Indian high-ability students that feel in a state of "otherness" have difficulties accessing advanced-level coursework and in overcoming preconceived

attitudes of school personnel (Cannon, 2011). Identifying Native students in a gifted program does not automatically create participation or achievement. There needs to be additional action to monitor student progress in order to differentiate instruction to maintain participation of students (Lovett, 2011).

At all levels of the educational system, Native Americans, Latinos, and African-Americans are dramatically underrepresented among top students in the US. There has been little research on strategies to increase the number of high achieving students from these groups (Miller, 2004). This longstanding pattern includes all social class segments, whether parents have completed high school or have graduate degrees. Miller recommended the design, testing, and evaluation of instructional strategies to increase the number of top students from these underrepresented ethnic groups.

New Mexico, like Montana, has faced unique challenges in educating students in rural areas (New Mexico Public Education Department, 2010). The state has been working to improve education for American Indian students through a collaborative effort of the state's Public Education Department, Office of Indian Affairs, Higher Education Department and tribal communities. Five million dollars in legislative appropriations were given for: Advanced Placement classes for Native American high school students; solutions for teaching Native children on and off reservations; and expansion of the Lottery Success Scholarship to include students who attend tribal colleges (New Mexico Higher Education Department, 2005).

Schools alone are not sufficient to ensure high levels of academic development; supplemental educational experiences are needed (Gordon, Bridglall & Meroe, 2004). High academic achievement has been closely associated with exposure to family and

community-based activities and learning experiences. These occur both in and out of

school. For low-income and some ethnic minority students, compared to students from

mid to high socio-economic backgrounds, there is a lack of participation in such

activities. The researchers believed there was a need for more research of the

supplementary education movement.

Project-Based Learning (PBL) is a powerful way to produce rigorous learning

(Harada, Kirio, & Yamamoto, 2008). Having students learn through working on projects

is not a new instructional strategy, but PBL is considered a more holistic instructional

strategy. PBL builds on students' individual strengths and interests and helps them create

meaning for themselves.

There are two key factors that nurture academic talent among students of

ethnically and linguistically diverse backgrounds. The first is a consistent belief that these

students can succeed. The second are supports such as subsidized college visits,

extracurricular help, and lunchtime discussion forums (Kyburg, Hertberg-Davis &

Callahan, 2007).

Pathways to College Network (2004) strives to advance college access and

success for underserved students. Based on the research from hundreds of studies, this

organization created six principles to help guide educational leaders. These include:

having expectations that underserved students are capable of enrolling and succeeding in

college; providing college-prep. tools for students and families; embracing cultural

learning differences in learning environments; establishing programs and practices that

help students transition into college; assessing program practices regularly; and

maintaining financial and human resources to support students in preparing and enrolling in college.

Ecological Psychology

In any environment, the student attempts to "both accommodate and adjust to the changing environmental situation" (Swartz & Martin, 1997, p. 12). Swartz and Martin wrote that if school-aged youth had academic difficulties, the interaction between the person and the environment needed to be examined and the use of an ecological approach was "of paramount importance" (p. 16).

Bronfenbrenner's theory of human ecology (1979) provided the "necessary structure for gaining a theoretical understanding of the person-environment process" (Swartz & Martin, 1997, p. 11). The theory defines environment as "four embedded structures that act reciprocally to influence the individual" (as cited in Swartz & Martin, 1997, p. 11).

The *microsystem* is comprised of the physical space and materials, people in differing roles such as peers, parents, and teachers; and the activities in which they all interact. The *mesosystem* consists of the link between the student's microsystems such as home and school. The *exosystem* consists of things that do not directly affect the student but still have influence, such as institutions and media. The *macrosystem* involves cultural and societal belief systems that inherently influence the student.

Summary

The literature review focused on online learning, academic performance, learning needs, and gifted education of Native American high school students. Literature on the topics of grounded theory and ecological psychology were also reviewed. The review

helped this researcher create a framework to conduct the study, without predisposing her

to any preconceived ideas or biases that would hinder a pure grounded research approach.

CHAPTER THREE

Methodology

Research Design

Ecological psychology theory was the broader assumption that guided the research. The focus was on the participant's "subjective experience" in an online learning environment. The purpose was to gain "perceptual and actual characteristics of the environment into an ecological understanding of the individual, the environment, and their interaction" (Swartz & Martin, 1997, pp. 14-15). Because very little has been published about Native American students' experience in an online learning environment, it was decided a grounded theory approach was an appropriate method to begin exploring this phenomenon. Creswell (2007) wrote that this approach may "fill a void in existing literature, establish a new line of thinking, or assess an issue with an understudied group or population" (p. 102). This research moved "beyond description" and created a theoretical visual model of environmental conditions for Native American high school students who succeeded in an online learning environment (Creswell, 2007, p. 63).

Grounded theory was the research design most appropriate for collecting and analyzing data, and formulating theories about this new learning environment. Creswell (2007) wrote:

Grounded theory is a good design to use when a theory is not available to explain a process. The literature may have models available, but they were developed and tested on samples and populations other than those of interest to the qualitative researcher….A theory may be needed to explain how people are experiencing a

phenomenon, and the grounded theory developed by the researcher will provide such a general framework. (p. 66)

Consistent with Simmons' (2009) work, this study's grounded theory began with the general topic area of Native American high school students and online learning, with no predetermined goals, beyond generating an explanatory theory directly from data. The data came from open-ended interviews with questions meant only as prompts on the general topic. The participant, not the researcher, was the one in control of the interview.

The originators of this approach, Glaser and Strauss (1967), wrote that a grounded theory should continuously emerge when analyzing and coding the data. Data was constantly being analyzed and each next step in the process depended on what the researcher discovered in the data.

Students' personal responses to the interview questions were followed by interview probes (Patton, 1990). Interviews were audio taped, and then transcribed by the researcher. Data was then coded and analyzed. The data collected helped formulate a theoretical model to answer the overarching research question: ***What are the conditions for college-bound Native American high school students that result in a successful adaptation to an online learning environment?***

Montana's Native American high school students' online learning experiences have not been researched before. Since this research was an exploratory study, there was no research hypothesis.

Population and Sample

In a grounded theory study, "the theorist starts with a homogenous sample, individuals who have commonly experienced the action or process" (Creswell, 2007, p.

125). Participants in this study were Native American high school students who had successful online learning experiences; ethnic identification was determined by the guidance counselor and self-reported by the interview participant. Students were enrolled Tribal members or descendents of enrolled Tribal members. Students attended public high schools located in Western Montana on Flathead and Blackfeet Indian Reservations, and one small urban city. All interview participants successfully completed online coursework (a grade of C or better) through Montana Digital Academy fall semester, 2010.

The sample consisted of eight Native American 9th-12th grade students who experienced academic success learning in an online environment. Students took coursework in digital photography, web design, Latin, and health enhancement. There were four females and four males interviewed. Interview participants represented different Tribal affiliations, income levels, geographical locations, high school sizes, and interests.

Procedures

After University IRB approval for the research study, communication was sent via email to high school administrators asking for permission to study the online learning experiences of Native American students who had successfully completed fall coursework through MTDA. Guidance counselors assisted the researcher in locating appropriate participants. Permission was also obtained from each high school's Tribal Education Committee. At one high school, permission was also required and granted from a District Superintendent.

After participants were identified, high school counselors distributed information packets for students to read over with a parent. This included a cover letter requesting the student's participation in the study, a parental permission form, and a minor assent form (see Appendix A, B, and C). Decision to take part in the study was voluntary. No participants dropped out of this study after agreeing to participate.

Code numbers were assigned in order to protect each participant's anonymity (Creswell, 2007). Any information that could identify participants was kept strictly confidential. Data was kept private and in a location separate from information that would identify the participants. All signed consent forms, audiotapes, and other confidential information were kept in a locked cabinet. Actual names of the participants for this study were not used in any published work.

The grounded theory approach focused on themes and patterns that emerged from all analyzed data (interview transcripts) and not information from any one individual. In other words, when quotes were used, they were to illustrate a concept and were not associated with the identity of the person (Simmons, 2009).

Data Collection

The data collection phase occurred over a period of three months. Interviews were scheduled with school counselor assistance because, in most cases, counselors were involved in facilitating enrollment in online courses and were familiar with students' progress. Each interview took place in a private location on school grounds that allowed for confidential conversation. Prior to the first interview, the researcher read a verbatim statement to the participant (see Appendix D). This included the "purpose of the study,

the amount of time needed to complete the interview, and plans for using the results from the interview" (Creswell, 2007, p. 134).

Seven open-ended questions were the focus of the interviews:

1. *Can you tell me what school has been like for you?*

2. *Share with me your thoughts and feelings about taking an online class? What was that like for you?*

3. *What are the things that you think helped support your learning in this online class?*

4. *What kinds of things did you experience that did not help your learning in this online class?*

5. *Where did you go for help?*

6. *In what ways was learning online different for you than learning in a classroom?*

7. *How do you feel your Native culture affected your learning experience?*

The researcher asked follow-up questions in the form of interview probes. Patton (1990) identified three kinds of probes: elaboration, detail-oriented, and clarification. Examples of probes used in this study are provided in Figure 1. Initial interviews averaged approximately 55 minutes and were audio taped and then transcribed. Brief notes were written, which allowed for reflection on possible follow-up questions.

Each participant had a second interview within one week to answer follow-up questions; this interview averaged approximately 35 minutes. Prior to this second interview, the participant read the transcript from his or her first interview and checked for accuracy. Students had the opportunity to add, delete, or modify information. Only two participants wished to make any changes to the initial interview transcripts.

Participant #2 offered the following changes.

> *For the part about a larger high school being more difficult I think it wasn't necessarily it being a big high school was harder, it was more the transition my freshman year, just to be like in high school in general.*
>
> *Then also, when school became more important is when I started thinking about my career. Definitely that was the main thing when I figured out what I wanted to do. Um, I became more interested and realized it was more important.*
>
> *For taking a class in a classroom where you get feedback from other students, I guess another one that I really didn't think about was definitely Speech. I'm taking Public Speaking this year because I'm really shy and I'm not good with presenting and the teacher said that it's a good credit to have when you are going on to college if you work on public speaking and it's good to just have good communication skills in general. But we do um, every time we work on our speeches for a couple weeks and we present them to our class we always, we get feedback on what was good and how we improved from last time what we could still do better. So, we definitely get a lot of feedback in that classroom environment.*

Participant #3 made changes by reading through the whole transcript and then editing on the transcript for what she perceived to be her own grammatical errors in her answers. For example, she crossed out words like *stuff* and *I mean*.

Simmons (2009) wrote "data collection ceases when the analysis reaches *theoretical saturation*, the point at which data and analysis no longer yields new variations, concepts or categories" (p. 5). In this study, saturation occurred after the second interview. The resulting data consisted of twelve hours of audio taped interviews that were transcribed into 112 pages of data; this raw data was then systematically coded and analyzed for patterns and themes.

Elaboration

Participant*: I liked how it really kind of gave me a feel of what college is going to be like.*
Researcher*: Can you give me an example of how you feel it prepared you for college?*
Participant: *Just like you know, what to expect. To not have something like written out for me. You know, you need to do this, this, this, this. It's kind of just a due date.*

Detail-oriented

Participant: *All the kids that do the MTDA classes are in his class at one time. He has the room with all the computers in it.*
Researcher: *Is he a technology instructor?*
Participant: *Not really. They just stick the kids that are doing MTDA in his class.*
Researcher*: Is he a supervisor?*
Participant: *Kind of yeah. I mean he is a teacher. He teaches other classes.*

Clarification

Researcher: *Was it harder or easier for you compared to online?*
Participant*: Oh, online? It was kinda like, it was a little more easier. Like say, if you didn't really get it you can easily go back, but if the teacher's explaining it then you have to ask her. If you missed something then she'll probably say see me after class or something. And, you don't want to see her you just want to get up and get out of that class.*
Researcher*: So, if you're in a classroom are you embarrassed to ask questions?*
Participant*: Yea. I feel like more embarrassed to ask questions. If it's a stupid question friends will laugh at you, kind of joke around with you and stuff.*
Researcher*: So, to ask any question you don't understand would be easier for you online?*
Participant*: Yea. Because you get to type it out and she's the only one that gets to read it and stuff. So, yea, it'd be easier.*
Researcher*: Is that important to you? That other people don't know the kinds of questions you are asking?*
Participant: *Yea. It helps me out a little bit.*
Researcher*: Why is that important?*
Participant: *Because I ask the teacher online, send it though email, ask her then no one around will know what you guys are taking about or anything. If you need help or asking silly questions or something. No one will laugh because it's just between me and her, the question, yea.*

Figure 1. Examples of Interview Probes

Coding of Data

Procedures for analyzing and coding data followed guidelines proposed by Corbin and Strauss (2008) and Creswell (2007). Creswell (2007) outlined a grounded theory procedure that included "developing categories of information (open coding), interconnecting the categories (axial coding), building a 'story' that connects the categories (selective coding), and ending with a discursive set of theoretical propositions" (p. 160).

Corbin and Strauss (2008) defined coding as "extracting concepts from raw data and developing them in terms of their properties and dimensions" (p. 159). They posited that coding does not mean just taking words from raw data and then labeling it, but searching for words that best describe concepts the researcher believes the data reveals. In order to maintain an objective perspective, two professional educators were enlisted to observe and assist with this process.

Role of the Researcher

Researchers always bring personal biases and values to their work. Because of this, it is important that the researcher's role and predispositions are stated explicitly. The researcher holds a California Secondary Teaching Credential in English from San Diego State University with an emphasis in *Cross-Cultural Language & Academic Development (CLAD)*, a B.A. degree in Communication Studies with an emphasis in mass media, and an M.A. degree in Mass Communication.

The researcher has been active in implementing educational reforms. For eight years, she taught English at The Preuss School, a nationally ranked public charter school for low-income students, located on the campus of The University of California, San Diego. She also

designed and taught English coursework online to Preuss students who needed credit recovery.

The researcher worked part-time as a graduate assistant to help develop Montana's first virtual school. This was prior to the first academic year of Montana Digital Academy (MTDA) and before any interview participants were enrolled in coursework. The researcher believed that online coursework, if implemented correctly, had the potential to successfully educate students, especially those traditionally underserved in public schools.

Summary

The public school classroom learning environment has been a poor fit for many Native American students. There was a significant need to research the successful adaptation of Native students to a different learning environment, an online one. This qualitative grounded theory study examined the learning experiences of eight Montana Native American high school students who successfully completed online coursework provided by Montana Digital Academy.

Purposeful sampling was used to select participants who would "inform an understanding of the research problem and central phenomenon in the study" (Creswell, 2007, p. 125). Since a theory was unavailable to explain the process of Native students' successful adaptation to online learning environments, grounded theory was the best research design to use for collecting and analyzing data (Creswell, 2007).

CHAPTER 4

Research Findings

Data Sources

Participants consisted of eight Native American students enrolled in Western Montana public high schools located on Flathead and Blackfeet Indian Reservations, and one small urban city. Students successfully adapted to an online learning environment by completing coursework through Montana Digital Academy, fall semester, 2010.

Four females (one 10th, one 11th, two 12th grade) and four males (one 9th, one 11th, and two 12th grade) were interviewed, representing four different high schools. Participants self-reported Tribal affiliations as: Salish-Kootenai, Blackfeet, and Nez Perce. Different income levels, geographical locations, school sizes, and interests were represented in the sample.

Participants took the following online courses: Web Design, Digital Photography, Latin, and Health Enhancement. This was the first online learning experience with a virtual school for the majority of participants. In the prior academic year, two students had taken online coursework from Montana State University-Great Falls; one student had completed an online course from Great Falls Public Schools.

The data collected and analyzed resulted in the researcher creating a theoretical model to answer the overarching research question: ***What are the conditions for college-bound Native American high school students that result in a successful adaptation to an online learning environment?***

Creswell (2007) wrote, "interviews play a central role in the data collection in a grounded theory study" (p. 131). The intent of each interview was to find out about the

student's experience adapting to and interacting with an online learning environment. The researcher interviewed students who were comfortable articulating their feelings during face-to-face interviews. Concerning in-person interviews, Creswell (2007) wrote:

> The researcher needs individuals who are not hesitant to speak and share ideas, and needs to determine a setting in which this is possible. The less articulate, shy interviewee may present the researcher with a challenge and less than adequate data. (p. 133)

Data Analysis

Data analysis was based on studying the 112 pages of interview transcripts. These represented 12 hours of audio taped, in-depth interviews, with eight student participants. Analysis began by reading all transcripts straight through from beginning to end. Corbin and Strauss (2008) cautioned researchers to resist the urge to write in the margins, underline, or take notes, during this initial reading. They believed that "the idea behind the first reading is to enter vicariously into the life of participants, feel what they are experiencing, and listen to what they are telling us" (p. 163).

Open coding. Corbin and Strauss (2008) defined open coding as the "breaking apart and the delineating of concepts to stand for blocks of raw data" (p. 195). They wrote that detailed work in the beginning leads to rich and dense description and eventually well-developed theory. After numerous readings of the data, the researcher found 170 concepts that emerged naturally from the data. These are found in Table 1.

These results were printed out and cut into strips to more easily examine the concepts in-depth, and to sort and arrange the categories. This made it easier to look at all possible relationships.

Corbin and Strauss (2008) wrote of open coding as a brainstorming approach, an attempt to understand the "essence of what is being expressed" and used "research-denoted" concepts to describe this understanding (p. 160). They wrote:

only after considering all possible meanings and examining the context carefully

is the researcher ready to put interpretive conceptual labels on the data.

Conceptualizing data not only reduces the amount of data the researcher has to

work with, but at the same time provides the language for talking about the data.

(p. 160)

From the lists of concepts, categories began to emerge. These were initially categories that were central to the phenomenon or were extensively discussed by the participants (Creswell, 2007).

The researcher reflected on the categories by writing memos. Corbin and Strauss (2008) wrote that memos are:

a specialized type of written records – those that contain the products of our

analyses….It is not the actual form of memos that is important, but the actual

doing of them….Writing memos and doing diagrams is part of the analysis, part

of doing qualitative work. (p. 118)

Table 1   **Open Coding Phase: Concepts Identified**

Open coding is defined as breaking data apart and delineating concepts to stand for blocks of raw data.
(Corbin & Strauss, 2008, p. 195)

Students wanted and needed:
to be good students.
to get good grades
to maintain a good GPA
good behavior at school
to be good time managers who get
      work done on time
enjoyment
the fun of learning something new
to do something with their life
opportunities to take different
      coursework
to meet new people
more challenge
one-on-one from a teacher
to work ahead
to relearn material
experiences that would be like
      college
new friends
new relationships
new perspectives
	Students dissatisfied in the classroom because of:
	repetitive coursework
	wasted time
	annoyance and frustration with teachers/classmates
	boredom
	too much one-on-one from a teacher
	feeling held back
	difficulty focusing due to disruptions
	feeling dependent on the actions of others in class
	lack of comfort when checking grades
	teachers' "nagging" to get their work done/turn in
	teachers' "yelling" or getting "mad" when students
	   are talking
	teachers' nagging about due dates
	teachers' telling them to pay attention in class
	feeling "stress" when students acted immature
		In their school, students wanted and needed:
		a variety of coursework
		different kinds of classes
		different learning experiences
		online courses
		more opportunities to get ahead
		online courses so they could get ahead
		to succeed in something that is challenging
		to be challenged academically
		more peer feedback (as in Band & Speech)
		to feel independent
		less distractions than the classroom.
		to meet new people
		to learn more about how to use computers
		more creative activities in the classroom
		more work that gave them personal meaning

Table 1 continued

Students felt an online course would help them:
graduate from high school
get into college
be more prepared for college
be prepared for a career
stay eligible for sports in high school

In the online environment, students:
liked flexibility of the course
could access coursework when they wanted
liked the ease of making up coursework when absent for health reasons
got a whole lot more done
found it easier to concentrate
could concentrate and get work done

Students said they felt learning online:
was what college was going to be like
prepared them for college
was like college because they worked independently
eased some anxiety about going to college

Students said learning online:
had distractions - video games, music videos and yahoo mail.
was easier than in the classroom
was easier to receive feedback from peers
was easier to get instructor feedback
allowed ways to get peer feedback
gave them more peer feedback than in the classroom
received peer feedback which was more memorable than instructor feedback
felt instructor feedback not unique
got more experience in getting peer feedback

Students said learning in an online environment:
lacked one-on-one with a teacher
lacked face-to-face
was challenging without the face-to-face interactions
benefited them because more independent without one-on-one
took more time to complete work
was fun
made them work independently
was harder because no teacher to tell them to get work done
was challenging because they worked on something new
was easy to adapt to after they got used to it
made them feel successful because they learned something without one-on-one
gave them a feeling of independence
gave them a feeling of freedom
took more time to complete work
made it easier to work at their own pace
made it easier to work ahead
made it easier to get ahead of peers
meant they could speed up or slow down to fit their needs
made it easier if absent because could access the course
was individualized
was more comfortable when had to relearn something
was comfortable because instructor can not get mad
made them happy
was easier to relearn something

Students felt that in an online course:
feedback and replies were satisfactory and they got questions answered
difficult to get clarification when asking questions
had to wait for a reply and felt it took too long to type everything out
wanted clarification on a topic face-to-face
wanted help from their face-to-face peers
could get support from who they want and need
could communicate with peers they have never met
peer communication would eventually steer back to coursework.

In the online course, students:
wanted to make new friends
males want social communication - sports and interests
females not interested in socializing
read bios. of students in the class
posted their own bios.
referred to bios if a peer emails, comments on work, or posts
wanted to know who was in their class

In the online experience, students felt:
no personal connection with instructor
instructors didn't know them
questions not thoroughly answered
questions answered in timely manner t
don't get examples of what the instructor wants
use of Skype would have helped them
face-to-face and dialogue was needed
instructors were curt in answers
grades were accessed easily
instructors updated grades more than classroom teacher
course was laid out well
less reminders from online instructors

Students wanted:
one-on-one communication from instructor
verbal dialogue with instructors
instructors to go in-depth and clarify
face-to-face communication with instructors
online instructors that don't "nag" or annoy them

Table 1 continued

In the online learning environment, students:
felt more comfortable getting peer feedback
felt negative feedback was easier to take because impersonal
loved getting peer feedback because it was something new
viewed instructor feedback as not unique
felt instructors say the same thing to everyone
felt more comfortable to frequently check on grades
felt more comfortable asking a teacher a question
liked the privacy of instructor communication
knew the class couldn't laugh question was "silly".
felt less embarassed
felt less chance for Native students to be stereotyped by an
    instructor
felt they could be creative
liked creative aspects of coursework
liked creative coursework - digital photography & web design
liked personal meaning of the work they did
liked seeing other people's perspectives (peers they did not know)
on things
felt successful
felt course was fun and interesting
communicated with new people
felt it was important to check grades daily for success
felt it was important not to procrastinate
lack confidence in ever taking online math or science because of
lack of face-to-face teacher time
felt it was easier to learn
felt easier to *not* procrastinate because course was interesting

In the online learning environment, students:
said dads were the main learning support in the family
were provided with Internet, computer access, and software at the
    school site
wanted Skype.
wanted and needed access to computers and the Internet
wanted the ability to do Skype to communicate with their online
    instructors
said school computers lacked cameras for Skype
felt that face-to-face would help answer questions more easily
had problems when Internet access was down for a week
felt structured daily class time (50 minutes) on site was helpful
females would have rather worked at home
males would have rather worked at the school site
liked that coursework was offered at different seasons of the year
said would never take an online course in summer because too much
    to do – pow-wows/sun dances.
wanted an on-site person if needing assistance
said on-site supervisors important but secondary support
said supervisor occasionally would remind them when things due
asked supervisor to explain what vocabulary words meant
supervisor would answer questions

Axial coding. Axial coding was the next stage in analyzing the data and was used in order to relate concepts and patterns to each other and to look for a set of themes. Corbin and Strauss (2008) defined axial coding as "cross-cutting and relating concepts to each other" (p. 195). Comparative analysis, looking for similarities and differences in the incidents, was also used (Corbin & Strauss, 2008). Creswell (2007) wrote that it is the "process of reducing the database to a small set of themes or categories that characterize the … action being explored in the grounded theory study" (p. 160).

The following categories, questions, and memos emerged during the axial coding phase:

I. WHAT DO STUDENTS ALREADY BRING TO THIS NEW ENVIRONMENT?
Students Perceptions of Self
A. Good students: *They consider themselves good students*. They based this perception on their GPA and their behavior at school. They perceive themselves as good time managers who get work done and turn it in on time. School is important because it gets them to college or to a career. For example, one student said she is a good student because "I come to class prepared; I do all the outside work and I try to my greatest extent." She also saw "commitment and passion as something that makes a good student."

B. Motivators: *They try to maintain a good GPA. This was a strong motivator*. They saw good grades and maintaining their GPA as a ticket to college and to career, and eventually independence. Many were simply motivated by "enjoyment" and the "fun of learning something new." One student commented, "I want to do something with my life. At this point though, my motivation is to try and learn enough to make it to college and then in college I'll get a chance to actually learn."

C. Goal-Driven: *All students had goals and felt that an online course would help them reach their goals* - to graduate from high school, get into college, be more prepared for college, be prepared for a career, or stay eligible for sports in high school.

D. Native Culture: *There was a range of perspectives of Native culture*.
The following are examples:
"I don't take my culture very seriously at all as to where some of the other Native students do."
"I don't think it specifically has to do with anything. I think it's more your personality and your drive to get things done on your own mostly."
"There are some Native kids and their families aren't as necessarily as supportive or they have different home situations. I guess it depends on your family. I feel like you do see some kids that struggle but I feel like I have all the support in the world."
"I'm going to try and get back into Blackfeet. Try to speak more language of it."
"I'm kind of apart from Reservation culture. But, I guess it's also made me realize the importance of education because the only way my mom got away from the Reservation was through education and getting a job."

II. WHAT ARE THE STUDENTS' PERCEPTIONS OF LEARNING?
A. Education: *All students valued education.* Students commented on what they value about education, "school gets you where you want to go." One student wanting to go to college "for the life experience and it teaches better time management." Another said "the only way to further yourself in life is to learn." One student said "education is encouraged by my relatives…to get the opportunities that they never got."

B. Online learning: *All students saw online learning as an opportunity to reach their goals*. For the majority of students, this was their first online course experience. They also spoke of the "opportunity to learn something I haven't had a chance to learn." They spoke of "learning something and meeting new people."

III. WHAT ARE STUDENTS' PERCEPTIONS OF THEIR HIGH SCHOOL?
There was an overwhelming feeling of dissatisfaction for the following reasons:
A.   Lack of variety of coursework
All students felt that their high school (4 different high schools represented) lacked variety and depth of coursework. All students spoke of their high schools lacking the kinds of classes or learning experiences they wanted to have. Schools ranged from very remote to average rural to a larger urban high school in a college town; the lack of selection of classes in their home school prompted the interest in taking online. Many spoke about the amount of repetition in their coursework every year (e.g. shop for three years, Blackfeet language for many years.) Two students from different high schools mentioned the repetitive nature of their English classes. All students spoke of the lack of diversity - friends, relationships, and perspectives.

B. Boring classes
Students felt time in the classroom was boring and wasted. They all said that their high school coursework was boring. Many students are advanced and "fell asleep" or "twiddled their thumbs" in regular classes. Several were bumped up a grade; others were planning to graduate early. All talked about the wasted time in the classroom and found it "annoying" and "irritating." They all described classroom environments as "boring" and "mundane". One student commented on a class she took in the classroom as "incredibly frustrating. It feels like I'm wasting my life away when I could be doing something else, or in a different place." Another said, "It just seems like stuff is slow paced and some kids are not as mature as others. So, that can be annoying to be stuck around."

C. Lack of challenge
Students are thirsting for something new, interesting, and challenging.
They all talked about not being challenged. It's something they really desire. Most students found their math and science classes to be the most challenging classroom courses. Several students interviewed are graduating early or were bumped up a grade level to more challenging coursework. One student said, about her school experience, that it "lacked the challenging components that I wanted it to." Another student said in regards to online, "I thought it was exciting to try something new that our school didn't provide for us, or for me." One student commented, "I would rather be in a more rigorous class where I was feeling like I was challenged as opposed to sitting there doing busy work." Two females spoke of it as a "relief" to succeed in a challenging course; they both felt they've never really been challenged academically in a classroom.

D. Too many distractions
Students talked about distractions that made the classroom an uncomfortable and even a stressful environment. They also said it was difficult to concentrate. Participants spoke of students acting out in class, talking to them when they were trying to get work done. One student commented, "There's the distractions of peers talking, people texting, teachers getting off track for a long period of time."

IV. WHAT WERE THE SUPPORTS AND INTERACTIONS NEEDED FOR STUDENTS TO SUCCESSFULLY ADAPT TO THE ONLINE LEARNING ENVIRONMENT?

A. **PEERS** *Students would seek help from their peers (but not online peers).*

Students would seek the assistance of peers at their home school who were taking the same MTDA class. For many, peers were a big support. Two male students enjoyed communicating with peers who they had never met, but communication would eventually steer back to coursework. These were students that desired to make new friends, since they live in a very remote area. The females seemed less interested in socializing online with peers than the males. One female said she saw "no point because I won't ever see them." The boys did enjoy the little social communication they were able to receive with online peers from around the state. They told me they communicated about sports and other interests. Students said the personal bios. posted online were helpful because they wanted to get an idea of who else was in the class. They would frequently go back to the bios if a peer emailed them, commented on their work, or made a posting.

B. INSTRUCTORS

1. Students felt no real personal connection with their online instructor,

Students said that there was no "personal" or "human" communication. They felt their online instructors didn't know them. Yet, the majority of the students said the feedback and replies were satisfactory and they got their questions answered, but just felt that there was no personal relationship with the instructor. They said it was harder to get answers thoroughly answered or to go in-depth because it took too long online to type everything out and wait for a reply. It was harder to get clarification having to type everything. It was easier for them face to face. One student said that in a classroom "you can know your teacher and talk with them."

2. Some students felt it was difficult to get questions thoroughly answered from an online instructor.

Students had a strong desire to see their teachers face-to-face, even though many teachers did respond in a timely manner. One student said that she felt the teacher wouldn't even recognize her name. Students perceive online teachers as giving "feedback" more than classroom teachers. For classroom teachers, students said, "you get examples of what the teacher wants." The idea of examples came up frequently – that there are not as many examples online. (They may be getting verbal feedback more in the classroom and maybe because feedback from an online instructor is all written they feel they are getting more feedback or they may really be getting more feedback from the online instructor.) Since online instructors don't have the administrative classroom duties they are supposed to be focusing more on student feedback. All but one student was satisfied with the communication they received from the instructor; it was timely and answered their questions although several mentioned that Skype would have been better so they could have "face-to-face" and "dialogue". There was only one student who had a bad experience with instructors because when she received email messages she said, "occasionally they'd email me back but then they'd also tell me, you know, I have so many students right now, like I have a lot of stuff on my hands. You have to make sure your concern is top priority, I have so many people right now that I'm so busy." She also commented, when it comes to grading, teachers at her school "don't update the grades" like online instructors do.

3. The role of the online teacher was perceived quite differently than the role of the classroom teacher.

They like the one-on-one they get with teachers in the classroom. Many valued this. This is ironic because it's this exact one-on one help that they *don't* want when they want to feel independent. It's what makes them feel good about learning online. Students all had the same perceptions of the classroom teacher. They spoke of teachers "nagging" them to get their work done and turn it in, or "yelling," getting "mad" in the classroom when students are talking. Teachers nag about due dates or when they are not paying attention in class. Online teachers do neither. They say they need the verbal dialogue with the classroom teachers to really understand something in-depth or to clarify. The role of the teacher in the classroom was to " tell them when to turn stuff in." They said that the classroom teacher would just say, "do your work or turn your assignments in." One student said, "teachers are yelling at you to get your work done." Online is laid out well but no one reminds you. One student said, "Classroom teachers are always on your butt to get your work in." If students wanted something explained, they preferred a classroom teacher because of the face-to-face.

C. FAMILY
Dads were the main support in the family.
My dad "genuinely cared about something I was doing." Another student referred to his dad being "impressed with his learning." Although moms and grandmothers were mentioned, they were not mentioned as being an actual support to online learning. Dads were frequently mentioned. (*The fact that dads were almost always mentioned, is this also because of the flexibility of the environment? Does it feel more accessible to dads where the physical 9-3 school environment does not? Do dads feel the classroom environment is more moms' domain? Do dads feel more computer savvy?) "*Family, household" was the biggest support to one student who said she prefers to work independently and teach herself. Like the others, she mentioned her dad, not her mom, as a support when he would assist her in communicating with MTDA.

D. TECHNOLOGY
Having the school providing Internet and computer access was important.
One student saw the access to computers and the Internet as the biggest support to his learning, since he did not have access at home. The majority of students would like to do Skype to communicate with their online instructors but school computers lacked cameras. Students felt that face-to-face interactions would have helped in answering questions more easily. They also felt that then they would not have to type everything out and it would seem more personal. Many students were dependent on school computers not only for the hardware but also for Internet access and the types of software needed to complete the course. One student saw a parallel in the access teachers in the classroom give to learning and the access computers give to learning – viewing the computer itself as a kind of teacher and having access to it as a great opportunity for learning. Ironically, computers were his biggest support but also his biggest obstacle. He commented that access to computers was also an obstacle to learning because there were some distractions games and music videos, and that he "needed to stay focused." There were situations in one small remote school where Internet access would be out for as long as one week and that was a problem for those students.

E. STRUCTURED DAILY TIME AT THE HIGH SCHOOL SITE WAS IMPORTANT
Students mentioned that having the structured daily class time (50 minutes) - in some schools called a Study Hall – was very helpful. (All but one student did go to a structured physical place for a 50-minute daily class period with a supervisor there.) Most said they could work on it from home but for various reasons chose to work on it mainly at school. One boy did not have Internet access; the other had his folder on the computer at the school. Females would have rather worked at home. Males would have rather worked at school. One student commented that he attributed part of his success to the fact he took his course fall/winter semester "there is nothing to do in the winter except "round dances" and it is very cold." He said he would not take it in the summer where there are pow-wows and Sun Dances because there's too much to do in the summer. The time of year he took the course worked with his personal schedule, so it was a support to him.

F. SITE COORDINATOR
Site coordinators were usually a study hall supervisor or librarian and were mentioned as a necessary but secondary support.
They would either remind them of when things were due (replaces the role of classroom teacher) or just answer basic questions. One student taking a webs design course asked the librarian to explain vocabulary words he did not understand.

V. WHAT DID THE STUDENTS GET OUT OF THE ONLINE LEARNING EXPERIENCE?
Students were able to successfully adapt because:
A. Students felt challenged.
These students were all looking for something challenging, interesting, different Learning online did lack the one-on-one or face-to-face, which they saw as a challenge, but they also saw it as a benefit of online because it made them feel more independent. They saw online as taking more time but as more fun. One student said she liked the fact that online classes were more challenging for her because most classroom work has not been challenging. "Online is harder because there is no teacher to tell you to get your work done; she worked more independently." One student felt it was challenging because it was "new" but when

he got used to it he said it "flowed." One gifted student summed it up this way when asked if learning online was harder, "Well, more challenging. Not harder like, ugh. But, harder like, good. This is actually challenging."

B. Students felt empowered.
One person said it felt good to succeed because he was able to learn something "without one-on-one". Another student who often struggles in the classroom, said it "felt good to succeed without a teacher's help…can do stuff without her help." Students liked the independence and freedom and lack of handholding. The one-on-one is what they liked best about the classroom environment, yet they felt that it held them back in from the independence and freedom they so desire. They all said they couldn't get that independence in high school. On male student said, "'cause usually I don't really work. I just sit there and I just mess off with my other classmates." One student said about succeeding online that it "shows you that you can do your work on your own instead of getting help from others." Students felt good about doing "own independent work." One student commented, "It taught me that I could do it. It gives me like a boost."

C. Students liked being able to work at their own pace.
 The majority of students like to work ahead and felt held back in the classroom. All students said they could never work at their own pace in the classroom. Students liked to go back and relearn, refresh but also wanted the opportunity to work ahead if they desire to. Students saw online learning as personalized in the way that they could speed up and slow down the learning pace whenever they wanted. Most wanted to work ahead and liked that best about working online. Most felt held back in the classroom. Many said they were always ahead of their peers. Students could go back and pick up things if they were absent. They liked the individualized aspect. Others liked the fact you could go back and "repeat something 30-40 times without worrying about the rest of the class being held back." One student said, "When a teacher gets mad at me and says, 'Explain to me what I just said,' I sit there with a blank head and say I don't know." But, "online you can go back and start it over." He felt it way a better way for him to learn. "In a classroom a teacher can show you but you forget, but online you can go back and relook at it and work at your own pace." One student said, "I was a lot happier because I could do it all in a small amount of time, which is what I prefer. And, also I could just have it all concentrated, which is easier for me."

D. The flexibility of being able to access the course 24/7 was important.
 3 of the 4 females interviewed have health concerns and frequent absences. They said the flexibility to make up coursework was important.

E. Students liked working independently
Students felt that learning on their own meant they could get a whole lot more done. They all compared it to the classroom and how getting work done is dependent on how everyone else is acting and they all felt it was wasted time. One student said it was harder for her to concentrate in the classroom because "there's the distractions of peers talking, people texting, teachers getting off track for a long period of time. I just work better independently." Several students felt that online was like what college was going to be like since you will have to work more independently; it eased their anxieties. They said they felt more prepared. One student said with online I have to "rely on myself." Many students take "independent study" in their schools but said they didn't feel the kind of independence that online coursework gave them.

F. Students said it was easier to concentrate.
They felt there were fewer distractions than when they had to do work in the classroom. They felt that when online they could concentrate and get work done. All found focusing in the classroom difficult. All said it was an easier environment for them to learn. One student said it was very different working online "by yourself and it's quiet." One student who struggled sometimes in his studies said it's harder to concentrate in the classroom because "students talk to you and distract you and you get off task." However, there are online distractions too; he mentioned video games, music videos and yahoo mail. One student said, "It's easier to work online than in the classroom." Another said, "There are less distractions in the classroom and I can work at my own pace."

G. Students felt comfortable in an online environment for four reasons.
1. They felt it was easier to receive feedback from peers and instructors –All felt feedback was easier to get online from either peers or instructors. They like the opportunity to get peer feedback, something they were not used to in the classroom. All felt uncomfortable getting feedback in the classroom, commenting that if it's negative feedback it's hard to not take it personally. One student said student feedback was more "memorable." She perceived feedback from instructor as not unique, feeling that the teacher is going to say the same thing to everyone. Many loved getting peer feedback because it was something new. Only Band and Speech were mentioned as classes in school where they experienced getting peer feedback.   One student said feedback is easier online because it doesn't seem as "harsh" and added that in the classroom, "your natural reaction is to say, I don't really want to hear this."

2. A place that's less stressful - One student found online coursework to be less stressful for her than in the classroom where she felt the students were less mature and held her back. All students found it very easy to check on grades. When asked about checking on grades in the classroom, one student commented, "Well, I mean you can. You can go up to your teacher every day. They'd be annoyed after like the week, they'd be annoyed."

3. A place where it's easier to take risks - One student felt more comfortable asking a teacher a question online because it was private and the class wouldn't laugh if he asked a silly question. This same student would rather turn in assignments to an online teacher because he said the classroom teacher "they ask you questions." (This is interesting because in some Native cultures, asking a lot of questions is rude.). This same student said that in a classroom, "I feel embarrassed to ask questions. If it's a stupid question friends will laugh at you, kind of joke around with you and stuff" He said it's easier online, "Because you get to type it out and she's the only one that gets to read it….so it's easier….No one will laugh because it's just between me and her, the question, yea."

4. A place that's less threat of being stereotyped - One student said that if Native students feel discriminated against by teachers, online is better because the teacher won't know you're Native.

H. *Students liked the opportunity to be creative.*
Students liked the creative aspects of digital photography and web design. They liked the personal meaning of the work they did. They desired more creative activities in the classroom. They liked seeing other people's perspectives (peers they did not know) on things.   "If you know someone a long time you already know their perspective" said one student from a very small high school in a remote area.

I. Students would like to take future online coursework again.
Several students attributed their success to the fact the course was fun and interesting. One student said about learning online that he liked being able to "meet new people and learn more about how to use computers." Students checked their grades consistently and did not procrastinate but since the course was interesting they said it made it easy not to procrastinate. All were very happy at their success and saw it as proving they could succeed at something more challenging. Most said would not want to take a math or science in an online environment because they felt they needed to see a teacher face-to-face to succeed in those courses.

Analyzing data for context. After axial coding was completed, the data was analyzed for context. Corbin and Strauss (2008) wrote, "Context is the sets of conditions that give rise to problems or circumstances to which individuals respond by means of action/interaction/emotions….Normally at the end of the research investigation the products of analysis are presented as a set of findings" (pp. 229- 230). The context of the data was broken down into three major categories: causal conditions, online learning conditions and strategies, and consequences of the online adaptation (see Figures 2, 3, and 4.)

After analyzing data for context, information was encoded into narrative form. It was important to the researcher that the voices of the student participants were brought into the study through the use of embedded quotes. Students had no difficulty explicitly stating where they felt there was a good fit in adapting to an online environment, where they had to bend, and where there was a lack of fit. Creswell favored the use of embedded quotes because they "consume little space and provide specific concrete evidence, in the informants' words, to support a theme" (2007, p. 182).

Students came from face-to-face classroom learning experiences that shaped how they adapted to the online learning environment.

        Attitudes toward learning and school
        Family's influence
        Life goals
        Self-efficacy
        Enjoyment learning something new
        Classroom experiences
        Interactions with classroom teachers
        Cultural orientation
        Wants and needs

Figure 2. Causal Conditions

Students adapted to the online learning environment with the following strategies and conditions.

Strategies Used to Successfully Adapt to Online Environment
       Worked independently
       Managed time
       Used course time efficiently
       Engagement
       Concentrated
       Flexibility
       Initiative
       Pace & Progress

Use of Supports and Resources
       Peers
       Online Instructor
       Family Members
       High School Site

Lack of Fit
       Instructor interaction
       Lack of personal connection
       Online distractions
       Temporary outages of Internet access
       Lack of self-efficacy in math and science

Figure 3. Online Learning Conditions and Strategies

There were advantages to successfully adapting to the online learning environment.

Skills Learned or Developed
 Taking Initiative
 Flexibility
 Ability to question
 Persistence
 Working independently
 Collaborating with others
 Taking learning risks

Opportunities for Learning

Feelings of Empowerment
 Success in challenge
 Independence
 Confidence

Positive Expectations for the Future

Figure 4. Consequences of the Online Adaptation

Results of Analysis of Data for Context

 Causal conditions. Participants came from face-to-face classroom learning experiences that shaped how they adapted to the online learning environment (Bandura, 1977). McLellan and Sanchez (1997) wrote, "The behavior that results from the interaction within the classroom generates experiences that also determine what a person becomes and what a person can do" (p. 79).

 Attitudes toward learning and school. Although participants were dissatisfied with their high school classroom experiences, they did value learning and education. Students made comments such as: "the only way to further yourself in life is to learn"; "education is encouraged by my relatives…to get the opportunities that they never got";

and, "school gets you where you want to go." One student had a unique perspective about high school: "I want to do something with my life. At this point, my motivation is to try and learn enough to make it to college…in college I'll get a chance to actually learn."

Family's influence. The major influence of the family was revealed in the students' choices of educational goals. Their educational goals often mirrored their parents' educational level. If parents had not attended college, students' goals were to graduate from high school, and then attend college with hopes of getting a job. If parents had a college degree, students were more articulate and detailed in their educational goals. For instance, they would comment on the type of college degree they wanted to pursue and the type of coursework that would entail. If a parent had a graduate degree, students spoke of going to get an MBA or a law degree. One participant commented: "We're a very academically minded family…I always knew I had to get it done…The only way my mom got away from the Reservation was through education and getting a job." This student added, "My grandparents and relatives always find education to be of great importance and yet they don't make it important in their own lives." Another student said she gets "a lot of support from family to succeed at everything."

Life goals. All students spoke of wanting to attend college. They expressed interest in careers such as engineering, nursing, business, law, and interior design. One male 12th grade student had personal goals that reflected the concerns and fears of living on an Indian reservation. His goals for college were to "try to stay on task, pick the right crowd to hang with and don't do alcohol and drugs." He added, "I'm alcohol and drug free and I want to stay that way. 'Cause you know if you drink, you'll get in a car accident and probably die and that's what I'm scared of."

Self-efficacy. They perceived themselves as good students who thought this was the best way to realize their life goals. They defined good students as those who behaved in the classroom, had good work habits, and could manage their time. Participants felt they needed to be excellent students in order to go to college and have meaningful careers. They were strongly motivated to keep a high GPA since they perceived good grades as a ticket to college, a career, and independence.

Desire to learn something new. Students wanted the opportunity to learn something new and communicate with new people. This was the first online learning experience for the majority of participants; there was a strong interest in the subject they chose and they were confident in their computer skills. One student said, "I thought it was exciting to try something new that our school didn't provide for us, or for me." Students completed an Online Course Readiness Assessment, through the MTDA website, prior to beginning coursework. MTDA offered more than 75 courses free to any Montana public high school student for the 2010-2011 academic year. The fact that coursework was free was a big incentive to enroll. Participants thought online coursework would bring them one step closer to their life goals.

Past classroom experiences. Participants had strong feelings about their dissatisfaction of learning in a traditional high school classroom. Students felt that current high school coursework and assignments were boring and repetitive. One female student said her high school "lacked the challenging components that I wanted it to…I would rather be in a more rigorous class where I was feeling like I was challenged as opposed to sitting there doing busy work." A male student from a different high school said, "usually I don't really work. I just sit there and I just mess off with my other classmates."

Participants found it difficult to focus or concentrate due to distractions in the classroom. The size of the high school or class size did not make a difference. A male student from a remote high school with only seven other students in the class said it's harder to concentrate in the classroom because "students talk to you and distract you and you get off task." A male student with a class size of 14 commented that it was different working online "by yourself and it's quiet." A female student from a large high school said it was harder for her to concentrate in the classroom because of "the distractions of peers talking, people texting, teachers getting off track for a long period of time. I just work better independently." Other students commented on the stress or irritation they felt when students misbehaved or acted out in class.

Students also felt they were wasting time doing busy work and were not given opportunities to work at a faster pace or ability level. All students said they could not work at the pace they wanted. One student said, "It feels like I'm wasting my life when I could be doing something else, or in a different place." Except for math and science, they felt coursework was unchallenging. In addition, students found it difficult to make up coursework after being absent.

Interactions with classroom teachers. Participants seemed conflicted about the types of interactions they wanted with their classroom teachers. On the one hand, they cherished close relationships with the classroom teachers who got to know them. The majority of participants came from high schools located in remote locations. Many teachers lived in housing located next door to the school site. A high school class size can average five students, so there is a greater chance to interact and get to know a teacher. Students valued the one-on-one time they got from a teacher. One participant

said a group of students would go to a teacher's house after school for a study session,

"For some people, that could be considered inappropriate, but…we usually take a couple

kids with us and then we go study with the teacher….That's probably one of the biggest

things I value." Another student enjoyed "just spending time together….we'd go down

here on the little tiny baseball diamond…and throw a baseball or softball around."

Students commented on the need for personal, face-to-face, communication and dialogue

with teachers.

On the other hand, there was an emotional component to teacher interaction they

disliked. Participants were uncomfortable when a teacher got "mad" at the class for

talking. They were annoyed when a teacher would repetitively "nag" or "yell" to get

work done and/or turn assignments in. One male student said, "Classroom teachers are

always on your butt to get your work in." Another female student from a larger high

school commented, "Every day they'll be like, 'It's due Friday. It's due Friday.' Then

when you don't turn it in, the next week, 'You're missing this. You guys need to get this

in.' That was *never* how it was in my online class."

Some students were embarrassed to ask a teacher a question in front of the class.

Others were uncomfortable to ask a teacher to frequently check on their grades. Also,

class grade averages were sometimes not available until the end of the semester, so

students did not know where they stood in the class. Students were frustrated at being

"spoon fed" and wanted to work more independently. They were dissatisfied at not being

able to move ahead in a class because they were limited by what the teacher had planned.

Cultural orientation. Families were described as close-knit and supportive and

schools instilled pride in Native American heritage. Most participants lacked concern for

learning their Native language. One Blackfeet student commented that retaining the Native language was more important to his grandparents, but he did enjoy learning from them. He described it this way: "They want to keep the generation going. It's slowly dying out 'cause the English….I like to learn words from them….they tell stories about a long time ago. And, I'd sit there and listen to them, pay attention, and they would tell me and I would just sit there. Sit there and listen. Like I'm getting into a story….It feels good."

However, most students felt their Native culture did not affect their learning experience. Participants represented a range of Native cultural backgrounds and unique perspectives; some students felt no connection with their Native heritage, whereas others were serious about learning their Native language and enjoyed listening to oral stories from grandparents.

Students' wants and needs. Participants wanted and needed coursework that allowed them to feel challenged, independent, and more prepared for college. They felt a lack of rigor in their high school coursework. However, participants did comment on math and science classes as being harder than their other classes. Female participants, particularly, commented on the lack of rigor in their coursework. Many felt that taking an online course would prepare them more for college. "I just feel like not having a teacher help me one-on-one prepared me" one student said.

Many wanted to try something new, interesting, and fun. One male student said, "I thought it was exciting to try something new that our school didn't provide for us, or for me." The chance to take different coursework than what was offered at the high

school was important. One female student commented, "It was really nice when Digital Academy was offered to us…you can take language classes we don't offer here." Students wanted to study a wider variety of subjects, in both breadth and depth, than their local high schools offered them. They also wanted to learn new perspectives, be more creative, and make personal meaning out of course assignments.

Online Learning Conditions and Strategies.

Strategies used to successfully adapt to online environment.

Worked independently and managed time. In order to be successful in the online learning environment, participants were required to work independently and manage their time. One student said, "With online, I have to rely on myself." Students enjoyed the sense of freedom that the online environment gave them, since they proceeded through the course without one-on-one help from a classroom teacher. One male student commented that learning online was challenging because there "is no teacher to tell you to get your work done." A female student said it "shows you that you can do your work on your own instead of getting help from others."

Used course time efficiently. Students felt that they were able to complete work more efficiently online than in a classroom. Although students found there was a lot more reading than in a classroom, they felt it was easier to focus and concentrate. All students commented they got more work done online than they would in a classroom

Engagement. Students felt challenged by having to adapt to a new learning environment and liked the fact they learned new subject matter and computer skills. They were engaged in the learning process and put forth the effort to succeed. One male student who completed a course in Web Design commented, "at first I thought it was

going to be hard and boring, but then for one day I actually sat there, worked on it, and as I worked on it, it started getting fun. I was like, oh this is pretty cool. I can do this. They said create your own page like you want. It teaches you what to do and I got into it. Now I'm doing the school's web page, because of it." Another male student commented on the challenge of working on something "new" and said after he got used to working on the course, "it flowed."

One male student said that part of his success was due to the time of year he took the course. He commented, "There is nothing to do in the winter except round dances and it is very cold." He said he'd never take an online course in the summer because pow-wows and sun dances would keep him busy and he would not be as interested in completing assignments.

Concentrated. All participants felt they could concentrate better and get more work done than in a classroom. Students felt that getting work done in a classroom is dependent on other students and the classroom teacher. There were fewer distractions when working online.

Flexibility. Students demonstrated their flexibility by bending easily and stretching to fit in this online learning environment. The online environment also is flexible; since students could access coursework 24/7, they were able to complete missing coursework after long absences. One student who, due to health reasons, had to miss a lot of school, commented, "it's impossible for me to make up stuff unless the teachers give me the information. I can't work ahead of time. But, when I was in the online classes, I could work ahead, which was really helpful in those situations." Students appreciated the fact they could access their course grades daily if they chose to do that

Initiative to adjust pace and progress. Students were able to work at the pace they wanted but this took initiative. They moved ahead in the coursework or went back into previous units to refresh or relearn. One male student said, "In a classroom a teacher can show you but you forget, but online you can go back and relook at it and work at your own pace." A female student commented on the opportunity to go back and "repeat something 30-40 times without worrying about the rest of the class being held back."

Use of supports and resources.

Peers. The majority of participants relied heavily on their peers for support in completing assignments. Communication with peers, however, was not done online but was face-to-face communication with students enrolled in the same course located on the same high school site.

Participants enjoyed receiving feedback online from peers they did not know taking the same course. This was a new experience for most of them and added immensely to their learning experience. Students felt more comfortable receiving feedback from peers online than in the classroom. One male student said feedback is easier online because it doesn't seem as "harsh" and added that in the classroom, "your natural reaction is to say, I don't really want to hear this."

They often referred back to posted classmate bios; they learned who was in the course and who was communicating with them. Although several students wanted to socialize with new people, online communication was mainly limited to coursework. There were only two male students who communicated with online peers socially. One commented, "We were talking about different things. What we did in school, what sports

we were in and stuff like that. Every now and then it would float back to class but mostly just using it for social time. Just talking with each other."

Online Instructor. Participants also appreciated instructor feedback and felt it was received in a timely manner, but was not thorough or in-depth. Those students who had uncomfortable experiences with classroom teachers preferred the advantages of working in an online environment. A male student commented, "when a teacher gets mad at me and says, 'Explain to me what I just said', I sit there with a blank head and say I don't know…but, online you can go back and start it over." Students are also more comfortable because they can ask questions through private email, and turn assignments in online, instead of face-to-face. This same student commented, "Because you get to type it out and she's the only one that gets to read it….it's easier….No one will laugh because it's just between me and her, the question."

Students were relieved at not having to be "nagged" by instructors to turn their work in. One participant felt the online environment was more comfortable for Native students because there was less chance of stereotyping by instructors.

There was a feeling of satisfaction from participants who were able to succeed in the online environment without the one-on-one instructor support they were used to in the classroom. One senior said, "It felt good to succeed without a teacher's help…I can do stuff without her help." Because students were not as dependent on teachers as they had been in the classroom, they felt a sense of independence and freedom. One student commented, "It made me feel a lot more independent….made me feel successful….I know that I can do things on my own without teachers spoon-feeding it."

Family members. Families also helped participants succeed in their coursework. It's interesting to note that dads' attention to students' online coursework played a key role. One student was happy her dad genuinely cared about something she was doing. Another was glad his dad was "impressed" with his learning. Moms were rarely mentioned, whereas dads were always mentioned. It's possible that some of the dads had more computer background than the moms, and therefore expressed more interest. Another possibility is that the online school environment was one that was more accessible to dads, than the classroom environment, which is limited to school hours.

High school site. The school site and the resources that the site provided were critical to student success. In order for participants to succeed, the high school provided two important things: Internet access with computers and needed software, and structured daily class time. At some high schools, this was scheduled as a "study hall." Females would have rather worked at home. There was only one female participant who was able to do all coursework from home and did not need any resources from a school site. Males would have rather worked at the high school computer site.

An on-site supervisor, such as a librarian or another teacher, played the role of answering questions related to computers or course content vocabulary. They would also occasionally remind students when things were due.

Lack of fit.

Instructor interaction. There were difficulties for participants when adapting to an online learning environment. Instructor communication was one area where participants were dissatisfied. Although students liked the challenge of working independently, without constant face-to-face communication with a teacher, it was frustrating when they

needed more in-depth explanations and could not receive them. The amount of time to type email or instant messages back and forth with an instructor was time-consuming.

Participants wished they could have seen more "real life" examples from instructors to better learn the material. Also, students felt instructor feedback was not as "unique" as peer feedback; instructor feedback was often generic, or something the instructor might say to all students.

Lack of personal connection. Students felt no personal connection with instructors and commented that instructors did not know them or care about them. One student said, "My instructor wouldn't even know my name….occasionally they'd email me back but then they'd also tell me, you know, I have so many students right now, like I have a lot of stuff on my hands. You have to make sure your concern is top priority, I have so many people right now that I'm so busy."

Participants said Skype would have been a solution for quicker instructor communication, face-to-face dialogues, and a more personal relationship with the instructor. A few students used Skype in their home but Skype was not available to students on the school sites because there were no cameras available.

Male students from remote high schools wished they'd had more online social communication with peers from around the state; they wanted to communicate about sports and other interests. However, female students were not interested in socializing with peers in the course. One student said she saw "no point because I won't ever see them." One explanation for this is that male participants were from remote locations with very small high school sizes compared to the female participants. It is possible males had a greater desire and need to communicate with new people.

Online distractions. Participants had complained of a myriad of classroom distractions that kept them from concentrating. However, an online environment is also not without its distractions. Male students complained of the online distractions of music videos, video games, and personal email that sometimes kept them from doing their online work. One male student reflected the feelings of all participants when he said, "There are less distractions than in the classroom and I can work at my own pace."

Temporary outages of Internet access. There was one high school located in a remote area where Internet access was out for a week and students taking online coursework could not complete assignments.

Lack of self-efficacy in math and science. Many participants expressed a lack of confidence at taking math or science coursework. Since online learning was a new phenomenon for participants, students commented that math and science subjects would be too difficult for them to succeed online. They felt they needed a face-to-face, hands-on, environment to better understand the material.

Consequences of the Online Adaptation. There were four significant consequences to participants after successfully adapting to the online learning environment: the skills they learned or developed, opportunities for learning, feelings of empowerment, and positive expectations for the future.

Skills learned or developed. Students developed initiative, demonstrated flexibility, questioned, persisted, worked independently, collaborated with others, and took learning risks. Students had the initiative and flexibility to work at their own pace and ability levels; they also refreshed and relearned lessons as needed. Many were able to

work ahead of their peers, which is something they desired. They also felt they could work more efficiently online.

Because coursework could be accessed 24/7, participants checked on grades frequently and easily made up assignments if they were absent due to illness. If students were required to attend a family function or celebrate a Native or religious holiday, they were still able to complete coursework.

*Feelings of empowerment***.** Adapting to an online learning environment empowered all participants. This was caused by three major factors: feelings of independence working without a classroom teacher, confidence gained while successfully completing assignments, and being in control of their own learning. One 12th grade male student said, "It taught me that I could do it. It gives me like a boost."

*Opportunities for learning***.** Students had access to coursework and instructors that they would otherwise not be able to use**.** Participants felt that by adapting to an online environment they were more prepared for college. This was because of their lack of dependence on a teacher, time management skills learned, and experience gained in seeking out new learning opportunities. Since four participants were seniors, there was a sense of anxiety about starting college in the fall. Students viewed their online learning experience as an opportunity that taught them something new and interesting in a challenging way. They also gained other perspectives from new instructors and classmates.

Positive expectations for the future. Many participants lived in communities with severe economic hardships and attended high schools where it was difficult to recruit

highly qualified teachers. Students felt hope for their future when this experience brought them one step closer to realizing their personal goals.

The opportunity to take online coursework for free was significant. Many students took course subjects not offered in their high schools and two students were able to take more than a normal course load, giving them the opportunity to graduate early. All participants felt they would take online coursework in the future and hoped to graduate from high school, pursue college degrees, and have careers in areas such as: nursing, interior design, diesel mechanics, business, law, and engineering.

Theoretical Model

The researcher created a "theoretical model of the process under study" (Creswell, 2007, p. 161). Corbin and Strauss (2008) defined this process as *integration*, "the process of linking categories around a core category and refining and trimming the resulting theoretical construction" (p. 263). This model (see Figure 5) presents salient themes of the students' adaptation process that emerged from the findings; explains the process and story of the central phenomenon; and answers the study's overarching research question: *What are the conditions for college-bound Native American high school students that result in a successful adaptation to an online learning environment?*
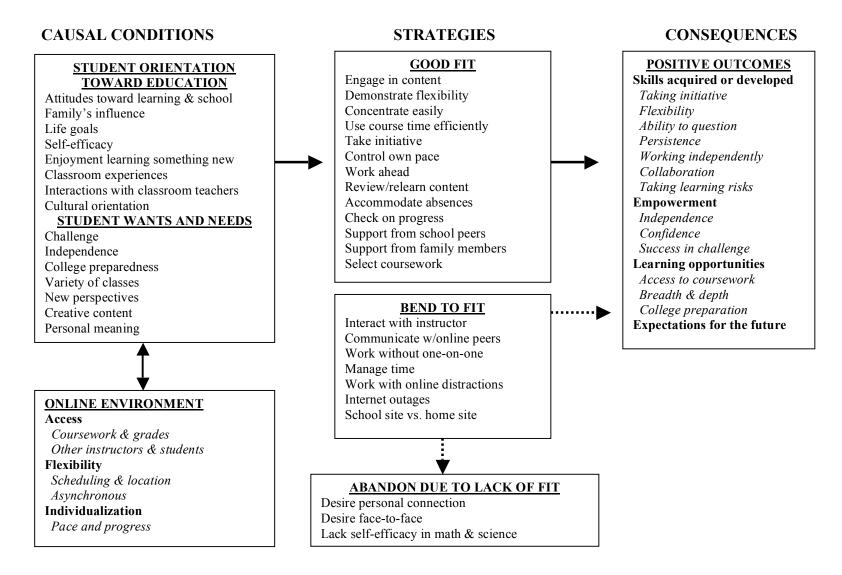
CAUSAL CONDITIONS   **STRATEGIES**   **CONSEQUENCES**

**STUDENT ORIENTATION
TOWARD EDUCATION**
Attitudes toward learning & school
Family's influence
Life goals
Self-efficacy
Enjoyment learning something new
Classroom experiences
Interactions with classroom teachers
Cultural orientation
STUDENT WANTS AND NEEDS
Challenge
Independence
College preparedness
Variety of classes
New perspectives
Creative content
Personal meaning

ONLINE ENVIRONMENT
Access
 Coursework & grades
 Other instructors & students
Flexibility
 Scheduling & location
 Asynchronous
Individualization
 Pace and progress

GOOD FIT
Engage in content
Demonstrate flexibility
Concentrate easily
Use course time efficiently
Take initiative
Control own pace
Work ahead
Review/relearn content
Accommodate absences
Check on progress
Support from school peers
Support from family members
Select coursework

BEND TO FIT
Interact with instructor
Communicate w/online peers
Work without one-on-one
Manage time
Work with online distractions
Internet outages
School site vs. home site

ABANDON DUE TO LACK OF FIT
Desire personal connection
Desire face-to-face
Lack self-efficacy in math & science

POSITIVE OUTCOMES
Skills acquired or developed
 Taking initiative
 Flexibility
 Ability to question
 Persistence
 Working independently
 Collaboration
 Taking learning risks
Empowerment
 Independence
 Confidence
 Success in challenge
Learning opportunities
 Access to coursework
 Breadth & depth
 College preparation
Expectations for the future

Figure 5. Theoretical Model of Successful Adaptation to an Online Learning Environment for College-Bound Native American High School Students

Causal Conditions. Students brought a repertoire of causal conditions with them to the new online learning environment. These conditions shaped the students' orientation toward education. Influences of family members and cultural orientation regarding attitudes toward learning and school were important factors. Students' classroom learning experiences, including teacher interactions and course self-efficacy, affected what they desired from the online experience.

Anxious about leaving home and attending college in the future, the desire to feel more prepared for college was important to most of the students. Several participants had a sibling who was attending college. In the online environment, students were less dependent on a teacher and felt they had learned time management skills and how to work independently.

Students liked being able to choose from the wide variety of MTDA courses available, to work independently, and to learn something new. Five participants chose to take either Digital Photography or Web Design, elective courses not offered at their schools. Besides the new skills they wanted to learn, they wanted to succeed and felt they had a good chance.

Strategies. The online learning environment was less stressful for all participants. Because of this, students adapted easily using strategies that helped them succeed. They demonstrated the flexibility needed to navigate the coursework and meet their personal needs. Students took the initiative to control the pace of their work. They also worked ahead, reviewed, and checked on their course grade frequently. Students found the course assignments creative and engaging and were able to concentrate easily.

If students were absent, they could accommodate their needs easily. Participants, especially females, missed a lot of school. One missed school for several months due to illness, another had recently had a baby, and another female missed school frequently throughout the academic year due to medical appointments. The ability to access coursework whenever they wanted, to work ahead in the course if they knew they would be absent, or to refresh material if they had been absent, was a necessity for success.

Relying on friends was an important strategy for almost all participants. School peers, enrolled in the same course, were used frequently. Participants could easily see and speak face-to-face with these peers if they had questions about assignments. Family members, especially dads, were also an important support for students.

There were areas where students did not adapt as easily and they had to make frequent adjustments. Online instructor communication was a major adjustment; it was not the type of communication that students were used to in the classroom. Students constantly switched between being dissatisfied with the lack of one-on-one attention from the online instructor and the satisfaction of working independently without help from an instructor. It is interesting to note, participants differentiated between the two types of teaching strategies. They defined the role of an online instructor as giving students feedback and the role of the classroom teacher as reminding students when assignments were due. If they wanted something explained, they preferred the classroom teacher. This was because they felt they could better understand material if it was explained face-to-face. Yet, if they wanted to ask a question, they would rather ask an online instructor because it was personally more comfortable for them.

There were some students who communicated with online peers, but the more social interaction they desired with these class peers did not come to fruition. Trying to focus on schoolwork with online distractions, music videos, video games and personal e-mail, was an adjustment for some of the male participants. For students living in remote areas, working around the Internet access outages, was another disruption.

All but one participant completed coursework at the high school site. MTDA students were provided with one daily 50-minute class period. There were students who wanted to work at home, but did not have Internet access or the software needed to complete the course. Females students liked the option of working from home but used the structured class time at the school site to get the work done. Another reason they liked the daily class period was that once they finished their online course assignments, they used that time to study for other classes or work on extracurricular activities. One senior used that time to work on college scholarship applications.

It was difficult for participants to adjust to the lack of face-to-face time with their online instructors. There was a feeling that the student was just a number; there was a strong desire for a more personal connection with the instructor. This was not only a difficult adjustment for students from remote high schools but also for students who attended much larger high schools.

For most participants, the dissatisfaction with lack of face-to-face communication added to the already low confidence levels in mathematics and science. Students said they would not be comfortable taking mathematics and science courses online because they felt the online environment could not give them the verbal and visual support they would need.

Carlton (2009) researched high school principals' perceptions of online learning environments. Perceptions were congruent with the findings of this study. Principals thought the advantages of online learning were: flexibility of course offerings, opportunity for independent learning, opportunity for advanced coursework, and individualized pacing of coursework. In this study, the theoretical model explains the prerequisite conditions, from the student's perspective, that need to be in place for these advantages to occur.

Carlton (2009) wrote that the principals perceived the disadvantages of online learning were the lack of interaction and technology problems. Again, perceptions were congruent with this researcher's findings. However, in this study, the theoretical model situates Carlton's findings within the context of a student's ability to adapt to this disadvantage by either bending or possibly abandoning the online learning experience.

Consequences. There were no negative consequences to students learning in an online environment and many positive outcomes. Students were able to acquire or develop successful thinking and learning skills by adapting to the online environment. Participants took initiative, were flexible, asked questions, persisted, worked independently, collaborated with others, and took learning risks.

Carpenter (2004) conducted a case study of secondary students in a state virtual school and found that students became more responsible and in control of their own learning. Self-pacing was seen as the greatest strength of their online learning experience. Carpenter's work corroborated the findings of this study. However, in this study's theoretical model the causal conditions were explained; a students' orientation toward

education, previous classroom experiences, and instructional needs contributed to success.

Students felt empowered by adapting to the online environment. This was caused by three major factors: feeling independent working without a classroom teacher, gaining confidence from successfully completing assignments, and being in control of their own learning.

Many students lived in remote areas that lacked educational and job opportunities. Adapting to an online environment gave them a more promising outlook for their future. Students had opportunities to: choose from a wide variety of courses that offered them more breadth and depth in academic and elective areas; choose coursework that interested them and closely aligned to their personal career paths; and work in a learning environment that more closely reflected a college experience.

Barbour and Reeves' (2009) work corroborated the findings of this researcher's study. Their research also found that benefits associated with online learning are: expanded educational access and learning opportunities; improved student outcomes and skills; and educational choice. However, the theoretical model in this researcher's study illustrates how positive outcomes can be traced back to identifiable causal conditions.

Accuracy and Verification

To ensure the credibility of this study, Eisner's (1991) procedures for checking accuracy and verifying results were followed. First, data was systematically coded and analyzed for concepts and themes. Two professional educators observed and assisted with the coding process, and the Dissertation Chair verified the accuracy of data coding and interpretations.

Second, member checking was used after the interview process, a technique considered the most important way to establish credibility (Lincoln & Guba,1985). Member checking included having participants read interview transcripts and make any additions, deletions, or modifications.

Third, after analyzing the data, a literature review was conducted to shed light on the theory and to corroborate the findings. Finally, the study's conclusions were taken back to the participants so they could judge the accuracy of the researcher's data interpretation.

Corbin and Strauss (2008) suggested further criteria to judge the quality of grounded theory research. The first is *fit*. Do the findings resonate with the participants and the researcher? The second criterion is *applicability*. Do the findings offer new insights and understandings? Third is *logic*. Do the findings make sense? "Are methodological decisions made clear so that the reader can judge the appropriateness for gathering data and doing analysis?" (p. 306). Last are concepts. The findings "must be more than a mass of uninterpreted data that leave the reader trying to figure out what to make of it" (p. 305). By following these guidelines, and focusing on learning the meaning that participants held about their experience (Creswell, 2007), the study represents an understanding of collective experience rather than an effort to convince readers of generalized truth.

Every attempt was made to bring objectivity to this study. The researcher focused on learning the meaning that participants held about their experiences, and not the meaning that she brought to the research (Creswell, 2007).

Summary

Findings showed that a student's orientation toward education, such as attitude toward learning and school, family influence, and past interactions with classroom teachers, affected the adaptation process. Students had to adjust to the lack of face-to-face time with online instructors.

 In participants' local high schools, course offerings were limited, especially in remote schools. The repetitive nature of the classroom work, and small class sizes, resulted in boredom and lack of challenge. Students thirsted for something new and interesting and learning online met this need. They took the initiative to work at their own pace and ability levels, relearning or working ahead. They enjoyed the challenge, freedom, and independence that resulted from learning online. Those who frequently missed school were easily accommodated.

Participants felt empowered and had more positive expectations for their future as a result of learning online. This was caused by three factors: feelings of independence working without one-to-one personal contact from a classroom teacher, confidence gained when successfully completing assignments, and control felt from being in charge of their own learning.

CHAPTER FIVE

Discussion

Theoretical Framework

The classroom learning environment has been a poor fit for many of Montana's American Indian students (Cross, 2001; Juneau, 2001; Szasz, 1974), which has resulted in a large academic achievement gap between Native and non-Native students (Nelson, Greenough & Sage, 2009). High student mobility rates, lack of academic challenge, and lack of high expectations by instructors are contributing factors (Smoker-Broaddus, 2009).

There was a significant need to study a different learning environment, where Native students might find more academic challenge and success than in a traditional setting. "The goal of an ecologically based intervention…is to increase concordance between the behavior of a student and the settings in which he or she resides" (Conoley & Rotto, 1997, p. 58).

The framework of ecological psychology theory guided this research. The focus was on the participant's subjective experience in an online learning environment. The purpose was to gain "perceptual and actual characteristics of the environment into an ecological understanding of the individual, the environment, and their interaction" (Swartz & Martin, 1997, pp. 14-15).

Swartz and Martin (1997) wrote that, in any environment, the student attempts to "both accommodate and adjust to the changing environmental situation" (p. 12). The interaction between the person and the environment needed to be examined and the use of an ecological approach was "of paramount importance" (p. 16).

The focus of this research was to better understand the accommodations and adjustments that Native American high school students make when successfully adapting to an online learning environment.

The Model at Work

Based on the findings, a theoretical model was created (see Figure 5). This illustrated what would be required of a student to be successful in an online learning environment, and the consequences of that learning experience. For example, if a student had a strong positive orientation toward school: a desire to learn, had academic goals, and felt successful in learning situations, he or she could easily adapt or be a good fit with an online environment.

The model also illustrated the point that if a student lacked most of the prerequisite causal conditions: had no desire to learn; did not value education; had no academic goals; and/or lacked self-efficacy, then that student would not have the same positive outcomes as a student with strong educational wants and needs. Most likely, this student would have difficulty bending to fit. The lack of one-on-one time and personal connection with an instructor would be a more difficult adjustment. Therefore, the adaptation to the online learning environment may be unsuccessful. The positive outcomes and rewards of adapting to the new online environment would not be worth the effort, and the student would abandon the experience.

Even when a student came from a classroom environment where absences impacted grades, course offerings were limited, and learning expectations were low, if the causal conditions were met for the online environment, the student would be able to engage in content, demonstrate flexibility, and take the initiative to control his or her own

learning. The consequences of the online experience would be the acquired skills the student gains, such as working independently and taking learning risks. Additional positive outcomes would be feelings of confidence and empowerment that could be applied to other learning situations. These positive expectations of an academic, and therefore economic, future are especially significant to student populations who have been educationally underserved for generations.

Significance of Research Findings

This model may help educators better understand the workings of the variables associated with successful adaptation to an online learning environment, for the students who participated. For example, a student's orientation toward education, such as attitude toward learning and school, family influence, and past interactions with classroom teachers, affected the adaptation process; these factors were conditions that led to the student's adaptive strategies to successfully work in the new online environment.

A comparison of two learning environments. Participants often compared their online learning experiences with those of a traditional classroom. It is useful to discuss some of their past learning experiences, since these are part of the students' repertoire of learning wants and needs that they bring with them when adapting to the new online environment. The research revealed several causes for student dissatisfaction within the classroom environment and the types of teacher interactions and behaviors that resulted.

In contrast, these same types of teacher interactions and behaviors were not found in the online environment. Actually, all participants said they were more comfortable learning online. This comfort-level was due to the fact that it was less stressful and easier to concentrate.

Participants considered themselves good students, yet their high school classroom environment was not giving them the challenge they needed; they felt discouraged that their school time was "wasted." Online learning is one way to give students, who are willing and able to learn, educational opportunities to reach their potential.

In the classroom, students had a strong desire to communicate with a caring educator and to know that person would guide them. This research showed that, even when students learned online, they still desired a personal connection with the instructor. There was also a lack of fit in the online environment between what students desired in instructor communication and what the instructor delivered. However, the unmet need for a relationship with the online instructor did not prevent success in the online class, indicating students' ability to adapt.

Course offerings at the high schools were limited, especially in remote schools. The repetitive nature of the coursework, and small class sizes, resulted in boredom and a lack of challenge. Students thirsted for something new and interesting. This was the first online learning experience for most participants, and even though there was some trepidation at the beginning, they found they could adapt easily.

All students felt an inability to concentrate in a classroom environment due to the myriad of distractions, from teachers as well as classmates. One easy adjustment for participants was the ability to focus and concentrate on online learning material. This was a welcomed change for the participants.

Watson, Gemin, and Coffey (2010) wrote that online courses helped prepare students for college and a career and that some states are now requiring online learning

experiences in order to graduate from high school. Many employers require the use of web-based technologies to teach workplace skills. In this study, students commented on the need to feel more prepared for college and a career; they felt their local high schools did not satisfy all those needs. After succeeding in online coursework, they felt better equipped for college routine. It's important that students have that online learning experience coming out of high school.

Participants seemed conflicted about the types of interactions they wanted with teachers. On the one hand, they cherished close relationships with their classroom teachers who got to know them, and valued one-on-one time. Students commented on the need for personal, face-to-face, communication and dialogue with teachers. On the other hand, students were frustrated at being spoon fed and wanted to work more independently. They were annoyed when a classroom teacher would repeatedly remind them to turn in work. Handholding and constant reminders did not occur in the online environment.

There was less teacher interaction than participants were accustomed to, yet students were willing to bend and make required adjustments in order to learn in the new environment. They worked independently, without one-on-one teacher support, and found a sense of freedom in being in control of their own learning. Consequently, 11th and 12th grade participants felt more prepared for college, both academically and emotionally, through working independently online. Yet, they did miss the one-on-one time and the personal connection, like they had with favorite classroom teachers. They liked adults who they felt cared about them and helped guide them in the learning process.

Many Native American students have been disappointedly overlooked in gifted programs and in research (Fisher, 2007); their unique learning needs need to be acknowledged and met. In this study, challenge was something that participants strongly desired and needed. Learning in an online environment met this need in a variety of ways. For several participants, the academic challenge was paramount. These were students who had always felt held back in the classroom because they were not allowed to work at a faster pace or more challenging level. The online environment was an excellent fit because they took the initiative to individualize instruction to suit their needs.

For other students, using computers in a new way, navigating the coursework, and mastering the new learning environment was a challenge they relished. For the rest of the participants, challenge came when attempting to do something without help from anyone.

Participants felt empowered by adapting to the online environment**.** This was caused by three factors: feelings of independence when working *without* a classroom teacher, confidence gained when successfully completing assignments, and the control felt from being in charge of their own learning.

Online learning is a key component of students' long-term success in the global economy and can help transform today's high school students into lifelong learners (Umpstead, 2009). In this study, students had more positive expectations about their academic and economic future since they had access to more learning opportunities: courses, qualified Montana-licensed teachers, and students from around the state. These were all things they would otherwise not have been able to access.

Structured daily class time at the school site was an important factor in the success of participants. However, students would have been more satisfied, and less frustrated, with the online communication had they felt a personal connection with the instructor, and had they been given the opportunity to interact through a web-camera.

Absenteeism is a major problem at reservation high schools. In fact, several participants in this study missed a lot of school. Yet, the online environment had the flexible components that accommodated students so they could access coursework whenever they needed. Students adapted easily by individualizing lessons to suit their own needs, demonstrating flexibility when controlling the pace and progress levels of coursework. It's essential that students who have difficulties attending school be given the opportunity to take coursework online.

Students choose online courses for a variety of reasons that grow out of their individual needs (Watson, Gemin & Coffey, 2010). Watson, Gemin, and Coffey's research showed that students are benefited by learning online if they want a more individualized experience for their pace and progress, or have not been successful in a traditional setting. Students who had medical conditions, moved frequently, or were teen parents were also benefited. In this researcher's study, the theoretical model goes one step further to explain students' desires and expectations for the online environment, based on a dissatisfaction with the classroom.

There were several reservation high schools where students were not given an opportunity to learn in an online environment. All students should be given the opportunity to access a learning environment that may better meet their learning needs. Non-traditional or alternative schooling used to be considered only for at-risk students,

but this is no longer the case. This research showed there are good students who also have difficulties in the traditional classroom. They feel stressed and irritated working in the classroom. The idea of either a totally online learning environment or a blended learning environment should be an option for such students.

    Several high school administrators, contacted by the researcher, felt that students who failed in a classroom environment would fail in an online environment. Glass (2010) wrote:

> Virtual schooling is a rapidly growing and, to many, an increasingly troubling phenomenon. In a decade, online education has grown from being a novelty act to an established mode of education, consisting of asynchronous, computer-mediated interaction, between a teacher and students over the Internet. Although exact figures are hard to come by, online instruction provides all or part of the formal schooling for nearly one in every 50 students in the United States today.
>
> (2010, p. 2)

Shaftel and Fine (1997) believed, "There are many examples of children who may be mismatched in some way with their school or classroom settings. Not only will their behavior be judged differently in different settings, but they will in fact behave differently" (p. 98). Conoley and Rotto (1997) wrote that learning environments may bring out certain unwanted behaviors and so those behaviors are identified and labeled as a type of behavior disorder. "Which behaviors get labeled depends on the time, place, and culture in which they are emitted and on the tolerance of those who observe them" (p. 58).

It was difficult for participants to adjust to a lack of face-to-face and personal connections with online instructors. Although students in this study were able to abandon this need and still be successful, it is important to note that more than online support and email was needed. At a high school site, students should have access to: Skype and web cameras in order to attend instructor or peer-led conferences, software to allow for ventriloquy interactions, and a school telephone with speakerphone for instructor or peer conferences. Face-to-face meetings with instructors should not be ruled out.

SK Online (http://www.skonline.org) based in Salem-Keizer, Oregon, requires their online instructors to consider all communication options in order to strengthen the personal connection with students. The school provides web-based curriculum to students for the purpose of acceleration, credit-deficiency, home-schooling, or health reasons; it delivers this coursework to students in Oregon and throughout the world.

Many participants struggled in their classroom learning in math and science, and so were unwilling to enroll in those subjects online. There is a possibility that in a new and different learning environment, these students may actually find success in mathematics and science. Conoley and Rotto (1997) wrote: "Most ecosystems contain both supporting and inhibiting forces in terms of a student's match to various settings" (p. 60). There may be more supportive forces in an online environment than in a classroom to help some students master mathematics and science skills. However, the lack of student self-efficacy in those subjects would need to be addressed.

Most students felt their Native culture did not affect their learning experience, either in the classroom or in the online environment. Participants represented a range of Native cultural backgrounds and perspectives; some students felt no connection with their

Native heritage, whereas others were serious about learning their Native language and had a strong respect for Elders.

There were some limitations on asking questions about Native culture. Participants may not have felt they knew the researcher well enough to truly open up regarding culture. Their responses might be accurate, or they may have just been meant to divert attention away from having to really address the question.

The scholarly research on Native American high school students, learning in an online environment, is practically non-existent. There was a significant need for an exploratory study of this adaptation process.

Practical Implications for Educators

The practical significance of this study to educators and students was three-fold: first, online learning experiences of Native American high school students is now well documented; second, the theoretical findings benefit those who lack understanding of how college-bound Native students successfully adapt to an online environment; and third, educators are better equipped to create technical and curricula supports that promote academic success for Native American high school students.

The online environment should be considered a supplement to allow teachers to meet the diverse range of academic abilities and needs of their students. There are students who learn better in an online environment than in a traditional classroom setting. Many are capable of working independently, managing their time, and controlling the pace of their own learning.

Unfortunately, the physical environment in which they teach, including the supervision of students and the resulting disruptions, restricts classroom teachers.

Participants felt dissatisfied with the traditional classroom; students stated it was difficult to concentrate due to the myriad of distractions, from teachers as well as classmates. Even in schools with very small class sizes, teachers were unable to meet the learning needs of all students. It was difficult for teachers to individualize instruction through adjusting the lesson pace and progress of students. Usually, teachers don't allow students to work at a faster pace than the class as a whole.

The expense of building, renovating, and maintaining brick and mortar schools is costly. In a time of massive education cutbacks, online learning environments need to be considered as a viable option. Many districts are rushing to four-day school weeks to save money, yet there is little research that shows students will learn better. Online instruction may be a better option; students could work from home, a community center, or a public library, part of the week.

Limitations

Certain parameters exist in applying results of this study's findings to other areas. Students took Digital Photography, Web Design, Latin, and Health Enhancement, at no cost. The findings of this qualitative study are limited to the online learning experiences of eight Montana college-bound Native American high school students who completed coursework with a C or better, delivered by Montana Digital Academy. Results may be transferred to another context if there were similar situations to the one described in this study.

Future Research

This study showed the importance of researching participants within the framework of ecological psychology, examining the participants' attempts to "both

accommodate and adjust to the changing environmental situation" (Swartz & Martin, 1997, p. 12). More research is needed on the interaction between the person and the

Though this study was limited to college-bound Native American high school students, there are many students who do *not* consider themselves successful. They should be given the opportunity to learn in a different environment than the one in which they have repeatedly failed and a study should be designed to research them. "Discordance may be defined as a disparity between an individual's abilities and the demands or expectations of the environment – a failure of match between child and system" (Conoley & Rotto, 1997, p. 58). There is certainly the possibility that students who failed in a classroom environment could succeed in an online environment with the right supports in place. Accommodations and adjustments, used by at-risk students to successfully adapt to a new online learning environment, needs to be documented. These strategies could then be used as a model to help other students from similar backgrounds succeed in online coursework.

Future research should continue to focus on the conditions and strategies used during the online learning adaptation process. There is a need to find out more about students who failed in a classroom setting and who need credit-recovery coursework to earn a diploma. For instance, students who lack self-efficacy in mathematics and science subjects, but use successful strategies when adapting to an online environment, should be researched. Finally, classroom teachers who move over to the role of online instructors, and the strategies these teachers use to adapt, should also be studied using an ecological psychology approach.

This research has shown the conditions, strategies, and outcomes of college-

bound Native high school students adapting to an online learning environment. Findings revealed that these students enjoyed the challenge, freedom, and independence that resulted from this experience. There are many Montana Native students who continue to be underserved, and therefore limited in their access to the types of educational opportunities that online learning provides. The positive results of this study justify and call for more research on the topic of Native American students and online learning.

REFERENCES

Ambler, M. (1999). Educating the Native student at a distance. *Tribal College Journal of American Indian Higher Education*, X(3).

Amos, J. (Ed.). (2008, May). Straight A's: Public education policy and progress. *Alliance for Excellent Education,* 8(10). Washington, DC: Alliance for Excellent Education. Retrieved from http://www.all4ed.org/files/Volume8No10.pdf

Bandura, A. (1977). *Social learning theory*. Inglewood Cliffs, NJ: Prentice-Hall.

Barbour, M. & Reeves, T. (2009). A reality of virtual schools: A review of the literature. *Computers and Education, 52(2), 402-416.*

Boote, D. & Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher*, (34)6, 3-15.

Bronfenbrenner, U. (1979). *The ecology of human development: experiments by nature and design.* Cambridge, MA: Harvard University Press.

Cannon, M. (2011). View from the border: Removing barriers for urban gifted students. *Gifted Child Today*, 34, 26-30. Retrieved from ERIC. (EJ910147)

Carlton, L. (2009). *Illinois high school principals' perceptions of alternative learning environments. (*Doctoral dissertation*).* Retrieved from ProQuest Dissertations and Theses database. (gradworks.umi.com/34/15/3415764.)

Carpenter, M. (2004). *A qualitative case study of secondary students in a state virtual school*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database.

Cavanaugh, C. & Blomeyer, R. (2007). *What works in K-12 online learning*. Washington, DC: International Society for Technology in Education.

Cleary, L. & Peacock, T. (1998). *Collected Wisdom: American Indian Education.* Boston, MA: Allyn and Bacon.

Conoley, J. & Rotto, P. (1997). Ecological interventions with students. In J. Swartz & W. Martin (Eds.). *Applied ecological psychology for schools within communities* (pp. 55-73). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Corbin, J. & Strauss, A. (2008*). Basics of qualitative research: Techniques and procedures for developing grounded theory.* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Creswell, J. (2007). *Qualitative inquiry & research design: Choosing among five approaches,* 2nd ed. Thousand Oaks, CA: Sage Publications.

Cross, R. (2001). American Indian education: The terror of history and the nation's debt to the Indian peoples. In T. Davis, K. Johnson & G. Martinez (Eds.), *A reader on race, civil rights, and American law.* Durham, NC: Carolina Academic Press.

Davis, C. A. (2000). *Perceptions of North Dakota spiritual leaders on incorporation of cultural information into courses transmitted over tribal college distance learning networks.* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses database.

Demmert, W. (2001, December). *Improving academic performance among Native American students: A review of the research literature.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. Retrieved from ERIC (ED463917)

Dick, B. (2005). *Grounded theory: a thumbnail sketch.* Resource Papers in Action Research. Retrieved from http://www.scu.edu.au/schools/gcm/ar/arp/grounded

Doshier, S. B. (2003). *An evaluation of a reservation-based baccalaureate nursing program.* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses database.

Doyle, A., Klienfeld, J. & Reyes, M. (2009). The educational aspirations/attainment gap among rural Alaska Native students. *Rural Educator*, 30, 25-33. Retrieved from ERIC. (EJ869312)

Education Trust. (2003). *Education Watch: Montana. Key education facts and figures. Achievement, attainment and opportunity. From elementary school through college.* Washington, DC: The Education Trust. Available from http://www.edtrust.org

Eisner, E.W. (1991). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice.* New York: Macmillan.

Fire, N. (2009). *A contextual perspective of traditional Native American distance online learning in a Tribal college.* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses database. (gradworks.umi.com/33/57/3357705.)

Fisher, T. (2007). Identifying and teaching gifted Native American students. *Understanding Our Gifted,(20)1, 3-6.* Retrieved from ERIC. (EJ840480)

Glaser, B.G. & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Chicago: Aldine.

Glaser, B. G. (2002). Conceptualization: On theory and theorizing using grounded theory. *International Journal of Qualitative Methods*, 1(2). Retrieved from http://www.ualberta.ca/~iiqm/backissues/1_2Final/pdf/glaser.pdf

Glass, G.V. (2010). Potholes in the road to virtual schooling. *School Administrator,* 4 (67). Retrieved from http://www.aasa.org/SchoolAdministratorArticle.aspx?id=12934

Gordon, E., Bridglall B. & Meroe, A. (Eds.). (2004). *Supplementary education: The hidden curriculum of high academic achievement.* Lanham, MD: Rowan & Littlefield Publishers, Inc.

Governor's Business Council (Texas). (2002, May). *Building an effective and aligned p-16 education system: What should higher education do to enhance students access and success?* Austin, TX: Governor's Business Council (Texas). Retrieved from ERIC. (ED505844)

Grier, T. & Peterson, K. (2007). *Middle college high schools: A meaningful option for disconnected high school students*. Clemson, SC: National Dropout Prevention Center.

Harada, V.H., Kirio, C. & Yamamoto, S. (2008). Project-based learning: Rigor and relevance in high schools. *Library Media Connection*, 26, 14-16. Available from http://www.linworth.com/lmc/

Hilberg, R.S. & Tharpe, R.G. (2002, September). *Theoretical perspectives, research findings, and classroom implications of the learning styles of American Indian and Alaska Native students.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. Retrieved from http://people.ucsc.edu/~tharp/pdf/eric_native.pdf

Juneau, D. (2009, January). *American Indians 101: Frequently asked questions*. Helena, MT: Montana Office of Public Instruction.

Juneau, S. (2001). *A history and foundation of American Indian education policy*. Helena, MT: Montana Office of Public Instruction.

Kyburg, R.M., Hertberg-Davis, H. & Callahan, C.M. (2007). Advanced placement and International Baccalaureate programs: Optimal learning environments for talented minorities? *Journal of Advanced Academics,* 18, 172-215. Retrieved from ERIC. (EJ767449)

Lavelle, B., Larsen, M. D. & Gundersen, C. (2009). Strategies for surveys of American Indians. *Public Opinion Quarterly*, 73, 385-403.

Lincoln, Y.S. & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lovett, P. (2011). Solutions for Jay and other underrepresented gifted minority students. *Gifted Child Today, 34, 55-59.* Retrieved from ERIC. (EJ910152).

Mavetera, N. & Kroeze, J. (2009). Practical consideration in grounded theory research. Sprouts: *Working Papers on Information Systems* 9(32). Retrieved from http://sprouts.aisnet.org/9-32

May, K.A. (1986). Writing and evaluating the grounded theory research report. In W.C. Chenitz & J.M. Swanson (Eds*.), From practice to grounded theory* (pp. 146-154). Menlo-Park, CA: Addison-Wesley.

Mayer, A. (2008). Expanding opportunities for high academic achievement: An International Baccalaureate diploma program in an urban high school. *Journal of Advanced Academics,*19, 202-235. Retrieved from ERIC. (EJ794091)

McLellan, M. & Sanchez I. (1997). Principles and Application of Ecological Assessment for Teachers. In J. Swartz & W. Martin, (Eds.), *Applied ecological psychology for schools within communities* (pp. 77-94). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Miller, L. S. (2004, August). *Promoting sustained growth in the representation of African Americans, Latinos, and Native Americans among top students in the United States at all levels of the education system.* Storrs, CT: National Research Center on the Gifted and Talented. Available from http://www.gifted .uconn.edu

Montgomery, D. (2001). Increasing Native American Indian involvement in gifted programs in rural schools. *Psychology in the Schools*, 38, 467-475. Retrieved from ERIC. (EJ634368)

Nelson, S., Greenough, R. & Sage, N. (2009, July). *Achievement gap patterns of grade 8 American Indian and Alaska Native students in reading and math. (Issues and Answers Report, REL 2009-No. 073).* Washington, DC: U.S. Department of Education, Regional Educational Laboratory Northwest. Retrieved from www.ies.ed.gov/ncee/edlabs

New Mexico Higher Education Department. (2005, December). *A world class education: Strategic plan, 2010-2015.* Santa Fe, NM: New Mexico Public Education Department. Available from http://www.ped.state.nm.us

New Mexico Public Education Department. (2010, July). *Developing relationships and partnerships between tribes and the state to ensure equitable resources and quality education for Native American students. State of New Mexico tribal-state Indian education summit report.* Santa Fe, NM: New Mexico Higher Education Department. Available from http://www.hed.state.nm.us

Pathways to College Network (2004). *A shared agenda: A leadership challenge to improve college access and success.* Washington, DC: Pathways to College Network. Available from Institute for Higher Education Policy http://www.pathwaytocollege.net

Patrick, S. (2007). Foreword. In C. Cavanaugh & R. Blomeyer (Eds.), *What works in K-12 online learning.* Washington, DC: International Society for Technology in Education.

Patrick, S. & Powell, A. (2009). *A Summary of research on the effectiveness of K-12 online learning.* Vienna, VA: International Association for K-12 Online Learning.

Patton, M.Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Pewewardy, C. & Hammer, P.C. (2003, December). *Culturally responsive teaching for American Indian students.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. Retrieved from ERIC. (ED482325)

Railsback, J. (2004, June). *Increasing student attendance: Strategies from research and practice.* Portland, OR: Northwest Regional Educational Laboratory.

Rainie, L. & Hitlin, P. (2005, August). *The Internet at school.* Pew Internet and the American Life Project. Retrieved from http://www.pewinternet.org/Reports/2005/The-Internet-at-School/Data-Memo.aspx

Reyhner, J. (2001, December). *Teaching reading to American Indian/Alaska Native students.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. Retrieved from http://www.eric.ed.gov/PDFS/ED459972.pdf

Rovai, A. (2002). Development of an instrument to measure classroom community. *The Internet and Higher Education,* 5(3), 197-211.

Schargel, F. & Smink, J. (2001). *Strategies to help solve our school drop out problem.* Larchmont, NY: Eye on Education.

Shaftel, J. & Fine, M. (1997). Ecosystemic intervention with teachers: A collaborative approach. In J. Swartz, J. W. Martin (Eds.). *Applied ecological psychology for schools within communities* (pp. 95-114). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Simmons, O. (2009). *Grounded theory online: Supporting GT researchers.* Retrieved from www.groundedtheoryonline.com

Smith-Hunt, A. P. (2001). *Uncharted territory: The shared experiences of adult minority distance learners.* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses database.

Smoker-Broaddus, M. (2009). *Data, data, and more data…filling in the achievement gaps in Montana's urban districts.* Helena, MT: Montana Office of Public Education.

St. John, E.P. (2002). *The access challenge: Rethinking the causes of the new inequality. Policy Issue Report.* Bloomington, IN: Education Policy Center. Retrieved from ERIC. (ED467615)

Strand, J.A. & Peacock, T.D. (2002). *Nurturing resilience and school success in American Indian and Alaska Native students* [ERIC digest]. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ED471488)

Swartz, J. & Martin, W. (1997). Ecological psychology theory: historical overview and application to educational ecosystems. In Swartz, J. & Martin, W. (Eds.). *Applied ecological psychology for schools within communities* (pp. 3-27). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Szasz, M. (1974). *Education and the American Indian*: *The road to self-determination, 1928-1973.* Albuquerque, New Mexico: University of New Mexico Press.

Tirado, M. (2001). Left behind: Are public schools failing Indian kids? *American Indian Report*, 17, 12-15. Retrieved from ERIC. (EJ637894)

Todacheene, V. (2008). *A sense of community in distance education: A tribal college students' perspective.* (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (ID 1596905651)

Umpstead, B. (2009). The rise of online learning. *Principal Leadership, 10(1), 68-71.*

VanBerschot, J. (2008). *An exploration of communication conventions used by non-native learners in asynchronous online courses*. (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (ID 1679319931)

Watson, J., Gemin, B. & Coffey, M. (2010). *A parent's guide to choosing the right online program*. Vienna, VA: iNACOL. http://www.onlinedegrees.org/inacol-releases-%E2%80%9Ca-parents-guide-to-choosing-the-right-online-program%E2%80%9D/

Watson, J., Gemin, B., Ryan, J. & Wicks, M. (2009, November). *Keeping pace with K-12 online learning. An annual review of state-level policy and practice.* Evergreen, CO: Evergreen Education Group.

Watson, J.F., Winograd, K., & Kalmon, S. (2004). *Keeping pace with K-12 online learning: A snapshot of state-level policy and practice.* Naperville, IL: Learning Point Associates.

APPENDIX A
COVER LETTER

A MODEL OF SUCCESSFUL ONLINE LEARNING EXPERIENCES
FOR NATIVE AMERICAN HIGH SCHOOL STUDENTS

February, 2011

Dear Parent/Guardian:

Your child has been chosen to participate in a research study about successful online learning experiences for Native American high school students. He/she successfully completed an online course from Montana Digital Academy this past fall semester. The purpose of the research is to find out more about the experiences of Native American students learning in an online environment.

Individual interviews will take place in February and March on the high school campus. Students will be asked a series of questions that focus on their online learning experiences during an audiotaped interview that will last no longer than 60 minutes. There will also be a follow-up interview within one week.

Participants' identities will be protected at all times. A confidentiality plan will be used and information identifying participants will be locked and secured. All information and materials that could identify participants from the study will be shredded and audiotapes destroyed when the study is completed.

If you are interested in having your child participate please ***read and sign the attached parental permission form***. Also, your child will need to ***read and sign the minor assent form*** attached. **Please return both forms to your high school counselor's office as soon as possible.**

The attached forms will answer many of your questions. However, if you have any concerns or other questions about the research or the interview process, please do not hesitate to contact me either by e-mail at collier.kaler@mso.umt.edu or by phone at 406-243-5126. Thank you for your support in this important research study.

Sincerely,

Ms. Collier Butler Kaler, Principal Investigator
The University of Montana
Phyllis J. Washington College of Education and Human Sciences
Department of Curriculum and Instruction, 32 Campus Drive, Missoula, MT 59812
Email: collier.kaler@mso.umt.edu   Phone: 406-243-5126

Attachment*s: parental permission form, minor assent form, copies*

APPENDIX B
PARENTAL PERMISSION FORM

<u>**A Model of Successful Online Learning Experiences for Native American**</u>
<u>**High School Students**</u>

Project Director: Collier Kaler
Faculty Supervisor: Dr. Darrell Stolle
The University of Montana
PJW College of Education and Human Sciences
Dept. of Curriculum and Instruction
32 Campus Drive
Missoula, MT 59812
collier.kaler@mso.umt.edu
darrell.stolle@mso.umt.edu
406-243-5126

Special Instructions: This permission form may contain words that are new to you. If you read any words that are not clear to you, please ask the person who gave you this form to explain them to you or contact the project director.

Purpose: You are being asked to give permission for your child to take part in a research study about *successful online learning experiences for Native American high school students.* Your child has been chosen because he or she successfully completed an online course from Montana Digital Academy this past fall semester. The purpose of the research study is to learn about the experiences of Native American students learning in an online environment.

Procedures: If you agree, your child will be asked a series of questions by a researcher during two separate audiotaped interviews. The interviews are scheduled to take place one week apart. Each interview will last no longer than 60 minutes and take place on his/her high school campus after school hours.

Risks/Discomforts: There is no anticipated discomfort for those contributing to this study, so risk to your child is minimal.

Benefits: There is no promise that you or your child will receive any benefit from taking part in this study. However, your child's participation may assist educators to improve the online learning coursework and environment for Native American students.

Confidentiality: Interview information will be kept private and will not be released without your consent except as required by law. Only the researcher, Collier Kaler, and her faculty supervisor, Dr. Darrell Stolle, will have access to the information. Both your and your child's identity will be kept confidential. If the results of this study are published or presented at a conference, neither your nor your child's name will be used. The information collected will be kept in a locked file cabinet. Your child's signed assent form, as well as this parental permission form, will be stored in a cabinet separate from the data. The audiotape will be transcribed without any information that could identify your child. All information and materials that could identify participants from the study will be shredded and audiotapes destroyed when the study is completed.

Voluntary Participation/Withdrawal: Your decision to allow your child to take part in this research study is entirely voluntary. You may refuse to allow your child to take part or you may withdraw your child from the study at any time without penalty. Your child may leave the study for any reason.

Questions: You may wish to discuss this with others before you agree to allow your child to take part in this study. If you have any questions about the research now or during the study, you may contact the researcher Collier Kaler by e-mail at collier.kaler@mso.umt.edu or telephone her at The University of Montana at 406-243-5126. If you have any questions regarding your child's rights as a research participant, you may contact the Chair of the IRB through The University of Montana Research Office at 243-6670.

Compensation for Injury: Although we do not foresee any risk in taking part in this study, the following liability statement is required in all University of Montana consent forms.

> *In the event that your child is injured as a result of this research you should individually seek appropriate medical treatment. If the injury is caused by the negligence of the University or any of its employees, your child may be entitled to reimbursement or compensation pursuant to the Comprehensive State Insurance Plan established by the Department of Administration under the authority of M.C.A., Title 2, Chapter 9. In the event of a claim for such injury, further information may be obtained from the University's Claims representative or University Legal Counsel. (Reviewed by University Legal Counsel, July 6, 1993)*

Parent's Statement of Permission: I have read the above description of this research study. I have been informed of the risks and benefits involved, and all my questions have been answered to my satisfaction. Furthermore, I have been assured that any future questions I may have will also be answered by a member of the research team. I voluntarily agree to have my child take part in this study. I understand I will receive a copy of this permission form.

Printed Name of Student:_____

High School:_____

_____   _____
Signature of Parent or Legally Authorized Representative   Date

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Please return this form, along with the signed minor assent form (attached), to the high school counselor's office. Keep a copy of this form with contact information for your records.

Thank you.

APPENDIX C

MINOR'S ASSENT FOR BEING IN A RESEARCH STUDY
The University of Montana

<u>**A Model of Successful Online Learning Experiences for**</u>
<u>**Native American High School Students**</u>

Why am I here?
I am asking you to take part in this research study because I am trying to learn more about the learning experiences of Native American high school students who have completed online coursework.

Why are you doing this study?
There has never been research conducted before on what it's like for Native American high school students to learn in an online environment. I want to conduct this study so I can find out more information on ways to improve the online learning experience.

What will happen to me?
If you agree to participate, you will be asked a series of questions during two separate 60 minute audiotaped interviews that will take place on your high school campus after school hours. The interviews will take place one week apart. You will have the opportunity to read the written copy of the interviews to make sure that what is written is what you intended to say.

Will the study hurt?
I don't anticipate any discomfort for you if you contribute to this study, so there is little risk to you if you participate. If you are uncomfortable, the interview will discontinued. There is no promise that you will receive any benefit from taking part in this study.

Will the study help me?
Your help with this study may help educators to improve the online learning coursework and environment for Native American students.

Do my parents (guardians) know about this?
This study was explained in writing to your parents or guardians. If you would like, you can talk this over with them before you decide.

What if I have any questions?
If you have any questions about the research now or during the study, you may contact me, **Ms. Collier Kaler**, by e-mail at collier.kaler@mso.umt.edu or telephone me at The University of Montana at 406-243-5126. I will give you a copy of this form so you have my contact information. If you have any questions regarding your rights as a research participant, you may contact the Chair of the IRB through The University of Montana Research Office at 243-6670.

Do I have to be in this study?

You do not have to be in the study. No one will be upset if you don't want to do this. If you don't want to be in this study, you just have to tell me. You can say yes now and change your mind later. It's up to you. Writing your name at the bottom of this page means that you agree to be in the study, and know what will happen to you. If you decide to quit the study all you have to do is tell me.

_____   _____

Name of Minor (printed)   **Date**

_____   _____

Signature of Minor   **Date**

_____   _____

Signature of Researcher   **Date**

_____

High School

Please return this form AND the parent permission to the high school counselor's office. Keep the attached copy of this form with contact information for your records.

Thank you.

APPENDIX D
OPENING VERBATIM STATEMENT

READ AFTER ASSENT FORM HAS BEEN SIGNED AND
PRIOR TO FIRST STUDENT INTERVIEW

Participant Code: _____   **Date:**_____ , 2011   **Time:**_____ **(am/pm)**
Grade Level:_____   **Male:**_____**Female:**____   **Tribal Affiliation:**_____
Fall MTDA Course(s) completed (C or better):_____
Was this your first online experience? Y   N
Are you taking online courses with MTDA spring semester? Y   N

- Thank you for agreeing to take time from your schedule to participate in this research study. There are a few things I would like to make sure you understand before we get started. The title of my research study is: *A Model of Successful Online Learning Experiences for Native American High School Students*

- You were chosen to participate in this study because your counselor identified you as a student who had successfully passed an online course through Montana Digital Academy this past fall semester. I am interested in finding out what your experience was like taking a course in an *online* learning environment.

- I will be asking you some questions and I will write down notes as well as audiotape record your answers. After I transcribe your responses from the audiotape, the tape will be destroyed. You may skip any questions or discontinue your participation at any time.

- I will meet with you again to provide you with a written copy of this interview so you can make sure that what you intended to say is in the transcript. At that time, you may change information that you are not comfortable with or add information if you choose.

- All information from our interviews will be kept confidential. That is, you will not be identified by name, location, or where you attend school, in this study or in any report from this study. A confidential participant code will be used to identify you.

- Your name and where you attend school will only be known by your counselor, myself, and my Dissertation Chair, Dr. Darrell Stolle, who oversees all aspects of my research study.

- There are no correct answers to any questions I ask. What is important, are *your* thoughts, feelings, and experiences. The intent of this interview is to gather your thoughts, feelings, and experiences, *not* to make judgments on your responses.

- Do you have any questions?